

United States
Circuit Court of Appeals ²

For the Ninth Circuit.

Transcript of Record.
(IN FOUR VOLUMES.)

LOST HILLS MINING COMPANY, a Corpora-
tion, and UNIVERSAL OIL COMPANY,
a Corporation,

Appellants,

VS.

THE UNITED STATES OF AMERICA,
Appellee.

VOLUME II.
(Pages 385 to 800, Inclusive.)

Upon Appeal from the United States District Court for the
Southern District of California, Northern Division.

FILED

JAN 16 1918

F. D. MURKIN, CLERK

United States
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(IN FOUR VOLUMES.)

**LOST HILLS MINING COMPANY, a Corpora-
tion, and UNIVERSAL OIL COMPANY,
a Corporation,**

Appellants,

vs.

THE UNITED STATES OF AMERICA,

Appellee.

VOLUME II.
(Pages 385 to 800, Inclusive.)

**Upon Appeal from the United States District Court for the
Southern District of California, Northern Division.**

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

MINERAL ENTRY No. —.

In the Matter of the Application of the LOST
HILLS MINING COMPANY, a Corporation,
for Patent to the PETROLEUM PLACER
MINING CLAIM.

EMBRACING:

The NW. $\frac{1}{4}$ of Section 32, T. 26 S., R. 21 E.,
M. D. B. & M., Kern County, California,
containing 160 acres.

NOTICE OF LOCATION PLACER CLAIM.

Notice is hereby given, that the undersigned citizen of the United States, in compliance with the requirements of the Revised Statutes of the United States have this day located the following described placer mining ground, viz.:

The Northwest quarter Section 32, Township 26 South, Range 21 East, M. D. B. & M., situate in the Lost Hills Mining District, County of Kern, State of California.

This claim shall be known as the Petroleum Placer Mining Claim.

Located 14th day of February, 1907.

H. WIDMER.

J. W. McCORD.

J. GILLESPEE.

H. J. LIGHT.

J. H. BUTTS.

J. N. HOYT.

A. R. ORR.

W. B. WALLACE.

[204]

I hereby certify the above and foregoing to be a true and correct copy of the original, filed for record at the request of J. N. Hoyt, Feb. 23, A. D. 1907, at 10 minutes past 9 o'clock A. M.

CHAS. A. LEE,

Recorder.

By _____,

Deputy Recorder.

State of California,

County of Kern.

I, Chas. A. Lee, County Recorder of said county, do hereby certify that the annexed is a whole, true and correct copy of an original as will appear by reference to Book 40 of Mining Records, p. 292, now in my office, and that said copy has been compared with the original and is a correct transcript therefrom.

WITNESS my hand and official seal this 8th day of November, A. D. 1911.

CHAS. A. LEE,
Recorder in and for the County of Kern, California.

By _____,
Deputy.

[Official Seal County Recorder, Kern Co., Cal.]

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IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

MINERAL ENTRY No. —.

In the Matter of the Application of the LOST
HILLS MINING COMPANY, a Corporation,
for Patent to the PETROLEUM PLACER
MINING CLAIM.

EMBRACING:

The NW. $\frac{1}{4}$ of Section 32, T. 26 S., R. 21 E.,
M. D. B. & M., Kern County, California,
containing 160 acres.

CERTIFIED COPY OF ARTICLES OF INCOR-
PORATION.

(Here appears a certified copy of Articles of In-
corporation of the Lost Hills Mining Company,
which is identically the same as the copy of the cer-
tified Articles of Incorporation as appears in Ex-
hibit "A," with the exception that the certificate
of the Secretary of State is numbered 19369, instead
of 18233, is dated the 2d day of November, 1911,
is signed by Frank C. Jordan, Secretary of State,

personally, and is numbered in the application for patent herein pages 14, 15, 16, 17 and 18.) [206]

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

MINERAL ENTRY No. —.

In the Matter of the Application of the LOST
HILLS MINING COMPANY, a Corporation,
for Patent to the PETROLEUM PLACER
MINING CLAIM.

EMBRACING:

The NW. $\frac{1}{4}$ of Section 32, T. 26 S., R. 21 E.,
M. D. B. & M., Kern County, California,
containing 160 acres.

RESOLUTION APPOINTING AGENT.

(See page following.) [207]

RESOLUTION APPOINTING AGENT.

WHEREAS, this corporation, the Lost Hills Mining Company, a corporation duly organized under the laws of the State of California, is the owner of certain oil placer mining claims in the County of Kern, State of California, for which it desires and is about to apply for United States patent; and

WHEREAS, the principal place of business of this corporation is the City and County of San Francisco, State of California, and without the United States Land District in which said mining claims are situate;

NOW THEREFORE, BE IT RESOLVED:

That O. D. Barton, who is a citizen of the United States, over the age of twenty-one years, be, and

he is hereby, appointed the agent of this company for the purpose of making applications for United States patent to the mining claims owned by this company, and he is hereby authorized and empowered to make, execute, sign and verify any and all instruments in writing necessary to be made in connection with said patent proceedings, and any documents which it may be necessary to file in the Department of the Interior of the United States in connection with and pertaining to such patent proceedings for and on the behalf of this corporation, and as its act and deed.

I, James H. Cameron, the duly elected, qualified and acting Secretary of the Lost Hills Mining Company, a corporation, do hereby certify that the foregoing is a full, true and correct copy of a resolution duly and regularly passed by the Board of Directors of said company at a meeting duly held by said board on the 29th day of May, 1911, and that the original of said resolution is recorded in the Book of Minutes of said company.

IN WITNESS WHEREOF I have hereunto set my hand and affixed the seal of said company the 2d day of June, 1911.

JAMES H. CAMERON,

Secretary.

[Corporate Seal of Lost Hills Mining Company.]

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IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

MINERAL ENTRY No. —.

In the Matter of the Application of the LOST
HILLS MINING COMPANY, a Corporation,
for Patent to the PETROLEUM PLACER
MINING CLAIM.

EMBRACING:

The NW. $\frac{1}{4}$ of Section 32, T. 26 S., R. 21 E.,
M. D. B. & M., Kern County, California,
containing 160 acres.

PROOF OF IMPROVEMENTS.

State of California,
County of Tulare,—ss.

O. D. Barton, being duly sworn according to law,
upon his oath, deposes and says:

That he is a citizen of the United States over the
age of twenty-one years and that he is the person
designated and duly authorized and empowered by
resolution of the Board of Directors of the Lost
Hills Mining Company, a corporation, to make on
behalf of said company all affidavits and to execute
any and all instruments in writing pertaining to the
application by said company for United States Pat-
ent to the Petroleum Placer Mining Claim, situate
in the County of Kern, State of California, embracing
the land hereinbefore described, as more particularly
appears by the certified copy of resolution of the

Board of Directors of said company on file herewith.

That the applicant has opened up and developed an extensive [209] and valuable deposit of gypsum of good commercial quality upon said land; that in exploring and developing said deposit the applicant has excavated a total area of about 47,000 square feet and various cuts aggregating a length of about 166 feet, with a width of 8 feet and a depth of about $11\frac{1}{2}$ feet on the NW. $\frac{1}{4}$ of said Section 32.

That all of said excavations and said cuts are made upon the deposit of gypsum that exists upon said land, but though extensive as this work is, does not disclose the full extent of the deposit of said mineral on said quarter section.

That said mineral exists in layers or blanket formation, one of which is about 3 feet in thickness, lying close to the surface of the ground, and the other layer is about 60 feet in thickness, beginning about seven feet below the surface.

That in both layers or blankets of gypsum above mentioned said mineral is of sufficient purity to make it valuable for use in the various ways in which such mineral is employed commercially. That the development work aforesaid discloses the existence of many thousands of tons of gypsum on the land involved in this application, which has a value of at least \$2.00 per ton on the ground.

That the applicant, in addition to the work done thereon, as hereinbefore stated, has bored a well in the NW. corner thereof to the depth of about 860 feet in and by which a deposit of petroleum has been

developed which produces through said well petroleum at the rate of about 100 barrels per day.

That in the work of developing the gypsum as aforesaid on the land involved in this application, the applicant has expended at least \$700.00 and in the boring of the well thereon above mentioned it has expended over \$9,000.00.

O. D. BARTON. [210]

Subscribed and sworn to before me this 10th day of November, A. D. 1911, at Visalia, California, and I hereby certify that I consider the above deponent a credible and reliable person and that the foregoing affidavit was read and examined by him before his signature was affixed thereto and the oath made by him.

[Seal]

D. E. PERKINS,

Notary Public in and for the County of Tulare, State of California, Duly Commissioned and Sworn.

[211]

CORROBORATION BY TWO DISINTERESTED WITNESSES.

State of California,
County of Tulare,—ss.

Earl Northrop and J. N. Young, each for himself and not one for the other, being first duly sworn according to law, deposes and says:

That he is a citizen of the United States over the age of twenty-one years and not interested in the application for patent made by the Lost Hills Mining Company for the Petroleum Placer Mining Claim, covering the NW. $\frac{1}{4}$ of Section 32, T. 26 S.,

R. 21 E., M. D. M., Kern County, California.

That he is familiar with said land and the whole thereof, having been upon and over the same frequently, and knows what work and improvements the said applicant has caused to be done and made thereupon; that he has read the foregoing affidavit of O. D. Barton and knows the contents thereof; that the said affidavit correctly states and describes the work and improvements upon the land hereinbefore described; that the drilling outfit and well mentioned in said affidavit are actually upon the ground and that said work and improvements cost at least as much as it is stated to have cost in said affidavit of O. D. Barton.

EARL NORTHROP.

J. N. YOUNG.

Subscribed and sworn to before me this 10th day of November, A. D. 1911, at Visalia, California, and I hereby certify that I consider the above deponents credible and reliable persons and that the foregoing affidavit was read and [212] examined by them before their signatures were affixed thereto and the oath made by them.

[Seal]

D. E. PERKINS,

Notary Public in and for the County of Tulare, State of California, Duly Commissioned and Sworn.

[213]

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

MINERAL ENTRY No. —.

In the Matter of the Application of the LOST
HILLS MINING COMPANY, a Corporation,
for Patent to the PETROLEUM PLACER
MINING CLAIM.

EMBRACING:

The NW. $\frac{1}{4}$ of Section 32, T. 26 S., R. 21 E.,
M. D. B. & M., Kern County, California,
containing 160 acres.

AFFIDAVIT OF NONEXISTENCE OF LODGE OR
VEIN.

State of California,
County of Tulare,—ss.

O. D. BARTON, being first duly sworn, according
to law, upon his oath deposes and says:

That he is a citizen of the United States, over
the age of twenty-one years, and that he is the per-
son designated and duly authorized and empowered
by resolution of the Board of Directors of the Lost
Hills Mining Company, a corporation, to make on
behalf of said Company all affidavits and to execute
any and all instruments in writing pertaining to
the application by said company for United States
Patent to the Petroleum Placer Mining Claim, situ-
ate in the county of Kern, State of California, em-
bracing the land hereinbefore described, as more
particularly appears by the certified copy of reso-

lution of the Board of Directors of the said Company on file herewith.

That affiant is now and for a long time prior hereto has been thoroughly familiar with the NW. $\frac{1}{4}$ of Section 32, T. 26 S., R. [214] 21 E., M. D. B. & M., Kern County, California, having been upon and over the same frequently.

That no known lode or vein of quartz or other rock in place bearing gold, silver, copper, cinnabar, or other mineral, exists within the boundaries of said land, and affiant verily believes that no such lode or vein exists therein.

That this affiant makes this affidavit on behalf of the applicant above named, the Lost Hills Mining Company, a corporation.

O. D. BARTON.

Subscribed and sworn to before me this 10th day of November, A. D. 1911, at Visalia, California, and I hereby certify that I consider the above a credible and reliable person and that the foregoing affidavit was read and examined by him before his signature was affixed thereto and the oath made by him.

[Seal]

D. E. PERKINS,

Notary Public in and for the County of Tulare, State of California, Duly Commissioned and Sworn.

[215]

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

MINERAL ENTRY No. —.

In the Matter of the Application of the LOST
HILLS MINING COMPANY, a Corporation,
for Patent to the PETROLEUM PLACER
MINING CLAIM.

EMBRACING:

The NW. $\frac{1}{4}$ of Section 32, T. 26 S., R. 21 E.,
M. D. B. & M., Kern County, California,
containing 160 acres.

AFFIDAVIT OF DISINTERESTED WITNESSES
OF NONEXISTENCE OF LODGE OR VEIN.

State of California,
County of Tulare,—ss.

Earl Northrop and J. N. Young, being each duly
sworn according to law, each for himself, upon his
oath deposes and says:

That he is a citizen of the United States over the
age of twenty-one years and not interested in any
way in the land involved in this application or in
any part thereof.

That affiant is now and for a long time prior
hereto has been thoroughly familiar with the NW. $\frac{1}{4}$
of Section 32, T. 26 S., R. 21 E., M. D. B. & M., Kern
County, California, having been upon and over the
same frequently.

That no known lode or vein or quartz or other rock
in place bearing gold, silver, copper, cinnabar, or

other mineral exists within the boundaries of said land and affiant verily believes that no such lode or vein exists therein.

EARL NORTHROP.

J. N. YOUNG. [216]

Subscribed and sworn to before me this 10th day of November, A. D. 1911, at Visalia, California, and I hereby certify that I consider the above deponents credible and reliable persons and that the foregoing affidavit was read and examined by them before their signatures were affixed thereto and the oath made by them.

[Seal]

D. E. PERKINS,

Notary Public in and for the County of Tulare, State of California, Duly Commissioned and Sworn.

[217]

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

MINERAL ENTRY No. —.

In the Matter of the Application of the LOST HILLS
MINING COMPANY, a Corporation, for
Patent to the PETROLEUM PLACER MIN-
ING CLAIM.

EMBRACING:

The NW, $\frac{1}{4}$ of Section 32, T. 26 S., R. 21 E.,
M. D. B. & M., in Kern County, California,
containing 160 acres.

PROOF OF POSTING NOTICE UPON CLAIM.

State of California.

County of Kern,—ss.

F. H. Davis and Chester H. Miller, each for himself and not one for the other, being first duly sworn, according to law, upon his oath deposes and says:

That he is a citizen of the United States over the age of twenty-one years and was present upon the tenth day of November, A. D. 1911, when the Notice of Intention of the Lost Hills Mining Company, a corporation, to apply for United States Patent for the Petroleum Placer Mining Claim, embracing the NW. $\frac{1}{4}$ of Section 32, T. 26 S., R. 21 E., M. D. B. & M., was posted upon the ground.

That said notice was so posted and in such a conspicuous place upon said placer mining claim at and upon the derrick over the oil well upon said claim that said notice could be easily and readily seen and examined. [218]

A copy of said notice so posted upon said claim as aforesaid is hereto attached, hereby referred to and made a part of this affidavit.

F. H. DAVIS.

CHESTER H. MILLER.

Subscribed and sworn to before me this 10th day of November, A. D. 1911, and I hereby certify that I consider the above deponents credible and reliable persons, and that the foregoing affidavit was read and examined by them before their signatures were

affixed thereto and the oath made by them.

[Seal]

JOHN F. GREEN,

Notary Public in and for the County of Kern, State
of California, Duly Commissioned and Sworn.

[219]

NOTICE OF APPLICATION FOR PATENT

(Not Coal Land.)

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

MINERAL ENTRY No. —.

NOTICE IS HEREBY GIVEN that pursuant to the laws of the United States relating to the sale of lands commonly known as "Placers" and in accordance with the rules and regulations of the Secretary of the Interior promulgated under such laws, the Lost Hills Mining Company, a corporation, whose postoffice address is 221 Crocker Building, City and County of San Francisco, State of California, intends to make application for United States Patent for the

PETROLEUM PLACER MINING CLAIM,
embracing NW. $\frac{1}{4}$ of Sec. 32, T. 26 S., R. 21 E.,
M. D. B. & M., in Kern County, California, contain-
ing an area of 160 acres, the Notice of Location of
which is recorded in Book 40 of Mining Records, at
page 292, in the office of the County Recorder of said
County of Kern.

No claims adjoin said claim which conflict there-
with as said claim and all others adjacent thereto are
located in accordance with the United States Survey
of said land.

POSTED UPON THE GROUND this 10th day
of November, A. D. 1911.

LOST HILLS MINING COMPANY,

By O. D. BARTON,

Its Duly Authorized Agent.

Witnesses to posting:

F. H. DAVIS.

CHESTER H. MILLER. [220]

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

MINERAL ENTRY No. —.

In the Matter of the Application of the LOST
HILLS MINING COMPANY, a Corpora-
tion, for Patent to the PETROLEUM
PLACER MINING CLAIM.

EMBRACING:

The NW. $\frac{1}{4}$ of Section 32, T. 26 S., R. 21 E.,
M. D. B. & M., in Kern County, California,
containing 160 acres.

PUBLISHER'S CONTRACT.

State of California,
County of Kern,—ss.

The undersigned, the Editor and Publisher of the
“Delano Record,” a weekly newspaper published in
Delano, Kern County, California, hereby agrees to
publish the Notice of Intention of the Lost Hills
Mining Company, a corporation, to apply for patent
to the Petroleum Placer Mining Claim, as required
by Act of Congress approved May 10, 1872, and
Amendments thereof, and the Act of Congress relat-

ing to the sale and disposition of public lands chiefly valuable for petroleum, situate in the County of Kern, and to hold the said Lost Hills Mining Company, a corporation, alone responsible for the amount of the bill for publishing the same.

And it is hereby expressly stipulated and agreed that no claim shall be made against the Government of the United States, or its officers or agents, for such publication. [221]

IN WITNESS WHEREOF, the undersigned has duly executed this agreement this 13th day of November, A. D. 1911.

C. H. SEIDERS,
Editor and Publisher. [222]

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

MINERAL ENTRY No. —.

In the Matter of the Application of the LOST
HILLS MINING COMPANY, a Corpora-
tion, for Patent to the PETROLEUM
PLACER MINING CLAIM.

EMBRACING:

The NW. $\frac{1}{4}$ of Section 32, T. 26 S., R. 21 E.,
M. D. B. & M., in Kern County, California,
containing 160 acres.

AUTHORITY TO SEND NOTICES.

To the Register and Receiver of the United States
Land Office, Visalia, California.

The undersigned, the Lost Hills Mining Company,
a corporation, the applicant in the above-entitled

and numbered application, hereby authorizes you or either of you to send all notices concerning said application to U. T. Clotfelter, attorney at law, 409 Kerckhoff Building, Los Angeles, California, and agrees that notices so sent shall be deemed to be notices to the undersigned.

Dated November 10th, A. D. 1911.

LOST HILLS MINING COMPANY,

By O. D. BARTON,

Its Duly Authorized Agent. [223]

Feby. 24, 1912.

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

MINERAL ENTRY No. 03448—679645.

In the Matter of the Application of the LOST
HILLS MINING COMPANY, a Corpora-
tion, for Patent to the PETROLEUM
PLACER MINING CLAIM.

EMBRACING:

The NW. $\frac{1}{4}$ of Section 32, T. 26 S., R. 21 E.,
M. D. B. & M., in Kern County, California,
containing 160 acres.

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IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

MINERAL ENTRY No. 03448.

In the Matter of the Application of the LOST
HILLS MINING COMPANY, a Corpora-
tion, for Patent to the PETROLEUM
PLACER MINING CLAIM.

EMBRACING:

The NW. $\frac{1}{4}$ of Section 32, T. 26 S., R. 21 E.,
M. D. B. & M., in Kern County, California,
containing 160 acres.

PROOF OF CONTINUOUS POSTING.

State of California,
County of Tulare,—ss.

O. D. Barton, being first duly sworn, according to
law, deposes and says:

That he is a citizen of the United States over the
age of twenty-one years, and is duly authorized to
act for and on behalf of the applicant above named,
as is shown by the duly certified copy of resolution
of said company conferring said authority upon
him, on file in the above-entitled proceeding.

That the notice of intention of the applicant
herein to apply for patent for the

PETROLEUM PLACER MINING CLAIM,
embracing the lands hereinbefore described, was
posted upon said mining claim on the 10th day of
November, 1911, as is fully set forth and described
in the affidavit of F. H. Davis and Chester H. Miller,
dated the 10th day of November, 1911, which affidavit

was duly filed in the office of the Register of the United States Land [225] Office at Visalia, in the State of California.

That said notice posted as aforesaid remained continuously and conspicuously posted upon said mining claim from the 10th day of November, 1911, to and including the 15th day of February, 1912, including the sixty-day period during which the notice of said application for patent was published in the newspaper.

O. D. BARTON.

Subscribed and sworn to before me this 24th day of February, A. D. 1912, and I hereby certify that I consider the above affiant a credible and reliable witness and that the foregoing affidavit was read by him before his name was subscribed thereto and the oath made by him.

[Seal]

E. C. FARNSWORTH,

Notary Public in and for the County of Tulare,
State of California, Duly Commissioned and
Sworn. [226]

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

MINERAL ENTRY No. 03448.

In the Matter of the Application of the LOST
HILLS MINING COMPANY, a Corpora-
tion, for Patent to the PETROLEUM
PLACER MINING CLAIM.

EMBRACING:

The NW. $\frac{1}{4}$ of Section 32, T. 26 S., R. 21 E.,
M. D. B. & M., in Kern County, California,
containing 160 acres.

PROOF OF PUBLICATION OF NOTICE.

State of California,
County of Kern,—ss.

(Here is newspaper clipping which is verbatim the same as Notice of Application for Patent herein given, signed and posted by Geo. W. Stewart, Register United States Land Office, Visalia, California).

C. H. Seiders, being duly sworn deposes and says that he is the Editor and Publisher of the "Delano Record," and has charge of and attends to the matter of publishing of all notices received from the above-entitled Land Office; that the annexed notice was published in the "Delano Record," a weekly newspaper published in the town of Delano, County of Kern, State of California, in each issue of said paper for ten (10) consecutive weeks, the first publication being on the 7th day of December, 1911, and the last [227] publication being on the 8th day of February, 1912.

C. H. SEIDERS.

Subscribed and sworn to before me this 21st day of February, A. D. 1912, and I hereby certify that affiant is a credible and reliable witness and that the

foregoing affidavit was read by him before his name was subscribed thereto.

[Seal]

W. B. TIMMONS,

Notary Public in and for the County of Kern, State of California, Duly Commissioned and Sworn.

[228]

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

MINERAL ENTRY No. 03448.

In the Matter of the Application of the LOST
HILLS MINING COMPANY, a Corpora-
tion, for Patent to the PETROLEUM
PLACER MINING CLAIM.

EMBRACING:

The NW. $\frac{1}{4}$ of Section 32, T. 26 S., R. 21 E.,
M. D. B. & M., in Kern County, California,
containing 160 acres.

APPLICATION TO PURCHASE.

To the Register and Receiver of the United States
Land Office, Visalia, California.

The undersigned, LOST HILLS MINING COM-
PANY, a corporation, under the provisions of the
Revised Statutes of the United States, Chapter VI,
Title 32, and legislation of Congress supplemental
thereto, hereby applies to purchase that certain
placer mining claim known as the Petroleum Placer
Mining Claim, embracing the NW. $\frac{1}{4}$ of Section 32,
T. 26 S., R. 21 E., M. D. B. & M., containing 160
acres according to the system of public lands survey
of the United States, and hereby agrees to pay there-

for the sum of \$400.00 being the legal price thereof.

Dated February 24th, 1912.

LOST HILLS MINING COMPANY,

By O. D. BARTON,

Its Duly Authorized Agent. [229]

I, George W. Stewart, Register of the United States Land Office, at Visalia, California, do hereby certify that the aforesaid mining claim as applied for above is subject to entry by the above-named applicant that the area of said claim is 160 acres and that the legal price thereof is \$400.00.

Dated February, 1912.

(No signature.)

Register. [230]

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

MINERAL ENTRY No. 03448.

In the Matter of the Application of the LOST
HILLS MINING COMPANY, a Corpora-
tion, for Patent to the PETROLEUM
PLACER MINING CLAIM.

EMBRACING:

The NW. $\frac{1}{4}$ of Section 32, T. 26 S., R. 21 E.,
M. D. B. & M., in Kern County, California,
containing 160 acres.

SWORN STATEMENT OF CHARGES AND FEES PAID.

State of California,
County of Tulare,—ss.

O. D. Barton, being first duly sworn according to law, deposes and says:

That he is a citizen of the United States over the age of twenty-one years and is duly authorized to act for and on behalf of the applicant above named, as is shown by the duly certified copy of resolution of said company conferring said authority upon him, on file in the above-entitled proceeding.

That in the prosecution of the above-entitled and numbered application the said applicant has paid the sums of money following:

To the Register and Receiver for Filing Ap- plication for Patent	\$ 10.00
For Publication of Notice of Application ...	25.00
For Purchase Price of Land	400.00
<hr/>	
Total.....	\$435.00

O. D. BARTON. [231]

Subscribed and sworn to before me this 24th day of February, A. D. 1912, and I hereby certify that affiant is a credible and reliable witness and that the foregoing affidavit was read by him before his name was subscribed thereto.

[Seal] E. C. FARNSWORTH,
Notary Public in and for the County of Kern, State
of California, Duly Commissioned and Sworn.
[232]

NOTICE OF APPLICATION FOR PATENT—
03448.

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

MINERAL ENTRY No. 03448.

December 2, 1911.

Notice is hereby given that pursuant to the laws of the United States relating to the sale of lands commonly known as "placers," and in accordance with the Rules and Regulations promulgated under such laws, the Lost Hills Mining Company, a corporation, whose postoffice address is 221 Crocker Building, City and County of San Francisco, State of California, has made application for United States Patent for the

PETROLEUM PLACER MINING CLAIM
situate in the County of Kern, State of California, embracing the NW. $\frac{1}{4}$ of Section 32, T. 26 S., R. 21 E., M. D. B. & M., in Kern County, California, containing an area of 160 acres, a notice of location of which is recorded in Book 40 of Mining Records at page 292, in the office of the Recorder of said County of Kern.

No claims adjoin said mining claim which conflict therewith, as said claim and all others adjacent thereto are located in accordance with the United States Survey of said land.

GEO. W. STEWART,

Register.

Date of First Publication, —, A. D. 1911.

Feb. 29, 1912.

4-229.

03448.

CERTIFICATE THAT NOTICE REMAINED
POSTED SIXTY DAYS.

UNITED STATES LAND OFFICE.

At Visalia, Calif., February 29, 1912.

I hereby certify that a notice, of which the attached notice is a copy of application No. 03448 by Lost Hills Mining Company for a patent for the Petroleum Placer Mining Claim, remained conspicuously posted in this office for the full period of sixty days; that said notice was posted on the 2d day of December, A. D. 1911, and remained posted until the 29th day of February, A. D. 1912; that during that time the plat of the official survey No. — of said claim remained in this office, and that no adverse claim has been filed.

GEO. W. STEWART,

Register. [234]

(Withdrawn Not Coal Lands.)

Feb. 2, 1912.

Received

For Field Division.

Dec. 6, 1911.

Second Field Division.

03448.

NOTICE OF APPLICATION FOR PATENT.
IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

MINERAL ENTRY No. 03448.

December 2, 1911.

Notice is hereby given that pursuant to the laws of the United States relating to the sale of lands commonly known as "placers," and in accordance

with the Rules and Regulations promulgated under such laws, the Lost Hills Mining Company, a corporation, whose postoffice address is 221 Crocker Building, City and County of San Francisco, State of California, has made application for United States patent for the

PETROLEUM PLACER MINING CLAIM

situate in the County of Kern, State of California, embracing the NW. $\frac{1}{4}$ of Section 32, T. 26 S., R. 21 E., M. D. B. & M., in Kern County, California, containing an area of 160 acres, a notice of location of which is recorded in Book 40 of Mining Records at page 292, in the office of the Recorder of said County of Kern.

No claims adjoin said mining claim which conflict therewith, as said claim and all others adjacent thereto are located in accordance with the United States Survey of said land.

GEO. W. STEWART,

Register.

Date of first publication —, A. D. 1911.

(Stamped in red ink is the following, in which is written the underlined portions:)

PROTEST

against the validity of this entry is filed in this office.

A. O. White,

Acting Chief of Field Division.

Jan. 31, 1912.

(Date). [235]

EXHIBIT "F."

4-131.

DEPARTMENT OF THE INTERIOR.

GENERAL LAND OFFICE.

RECEIPT.

No. 679645.

Use Copying Ink only
on this Receipt.

U. S. LAND OFFICE, Visalia, Calif.

Feby. 24, 1912.

RECEIVED OF Lost Hills Mining Company,

(Name)

Crocker Bldg., San Francisco, Calif., the sum of

(Address.)

Four hundred Dollars and — Cents, — in
connection with Mineral Application SERIAL No.
03448, for:

NW. $\frac{1}{4}$ Section 32,
Township 26 S., Range 21 E., M. D. Meridian,
160 acres, at \$2.50 per acre.....\$400.

Fees

Commissions

Testimony fees: — words at — cents per

100 words

Contest fees: — words at — cents per

100 words

Transcripts of Records: — words at —

cents per 100 words.....

Total\$400.

A. H. SWAIN,

No. 679645.

(Signature)

Receiver of Public Moneys.

This receipt is evidence only of the receipt of the amount indicated, and must be issued at the time the money is received, without regard to the subsequent allowance or rejection of the application, entry, etc., due notice of which will be given.

In case of error in this Receipt, notify the Receiver of Public Moneys where issued, and the Commissioner of the General Land Office, Washington, D. C.

In writing to the local land office or the General Land Office concerning the application or entry in connection with which this Receipt issued, always give the above SERIAL Number and the RECEIPT Number. [236]

EXHIBIT "G."

4-131.

DEPARTMENT OF THE INTERIOR.

GENERAL LAND OFFICE.

RECEIPT.

No. 679646.

Use Copying Ink only
on this Receipt.

U. S. LAND OFFICE, Visalia, Calif.

Feby. 24, 1912.

RECEIVED OF Lost Hills Mining Company,

(Name)

Crocker Bldg., San Francisco, Calif., the sum of

(Address.)

Four hundred Dollars and — Cents, — in
connection with Mineral Application SERIAL No.
03457, for:

NE. $\frac{1}{4}$ Section 32,
Township 26 S., Range 21 E., M. D. Meridian,
160 acres, at \$2.50 per acre.....\$400.

Fees	
Commissions	
Testimony fees: — words at — cents per	
100 words	
Contest fees: — words at — cents per	
100 words	
Transcripts of Records: — words at —	
100 words	
Total	\$400.

A. H. SWAIN,

No. 679646.

(Signature)

Receiver of Public Moneys.

This Receipt is evidence only of the receipt of the amount indicated, and must be issued at the time the money is received, without regard to the subsequent allowance or rejection of the application, entry, etc., due notice of which will be given.

In case of error in this Receipt, notify the Receiver of Public Moneys where issued, and the Commissioner of the General Land Office, Washington, D. C.

In writing to the local land office or the General Land Office concerning the application or entry in connection with which this Receipt issued, always give the above SERIAL Number and the RECEIPT Number. [237]

EXHIBIT "H."

4-131.

DEPARTMENT OF THE INTERIOR.

GENERAL LAND OFFICE.

RECEIPT.

No. 679648.

Use Copying Ink only
on this Receipt.

U. S. LAND OFFICE, Visalia, Calif.

Feby. 24, 1912.

RECEIVED OF Lost Hills Mining Company,

(Name)

Crocker Bldg., San Francisco, Calif., the sum of

(Address.)

Four hundred Dollars and — Cents, — in
connection with Mineral Application SERIAL No.
03459, for:

SW. $\frac{1}{4}$	Section	32,
Township 26 S.,	Range 21 E.,	M. D. Meridian,
160 acres, at \$2.50 per acre.....		\$400.
Fees		
Commissions		
Testimony fees: — words at — cents per		
100 words		
Contest fees: — words at — cents per		
100 words		
Transcripts of Records: — words at —		
cents per 100 words.....		

Total\$400.

A. H. SWAIN,

(Signature)

No. 679648

Receiver of Public Moneys.

This Receipt is evidence only of the receipt of the amount indicated, and must be issued at the time the money is received, without regard to the subsequent allowance or rejection of the application, entry, etc., due notice of which will be given.

In case of error in this Receipt, notify the Receiver of Public Moneys where issued, and the Commissioner of the General Land Office, Washington, D. C.

In writing to the local land office or the General Land Office concerning the application or entry in connection with which this Receipt issued, always give the above SERIAL Number and the RECEIPT Number. [238]

EXHIBIT "I."

4-131.

DEPARTMENT OF THE INTERIOR.

GENERAL LAND OFFICE.

RECEIPT.

No. 679644.

Use Copying Ink only
on this Receipt.

U. S. LAND OFFICE, Visalia, Calif.

Feby. 24, 1912.

RECEIVED OF Lost Hills Mining Company,
(Name)

Crocker Bldg., San Francisco, Calif., the sum of
(Address.)

Four hundred Dollars and — Cents, — in
connection with Mineral Application SERIAL No.
03432, for:

SE. $\frac{1}{4}$

Section

30,

Township 26 S., Range 21 E., M. D. Meridian,
160 acres, at \$2.50 per acre.....\$400.

Fees

Commissions

Testimony fees: — words at — cents per
100 words

Contest fees: — words at — cents per
100 words

Transcripts of Records: — words at —
cents per 100 words.....

Total\$400.

A. H. SWAIN,

No. 679644. (Signature)

Receiver of Public Moneys.

This Receipt is evidence only of the receipt of the amount indicated, and must be issued at the time the money is received, without regard to the subsequent allowance or rejection of the application, entry, etc., due notice of which will be given.

In case of error in this Receipt, notify the Receiver of Public Moneys where issued, and the Commissioner of the General Land Office, Washington, D. C.

In writing to the local land office or the General Land Office concerning the application or entry in connection with which this Receipt issued, always give the above SERIAL Number and the RECEIPT Number. [239]

EXHIBIT "J."

4-131.

DEPARTMENT OF THE INTERIOR.

GENERAL LAND OFFICE.

RECEIPT.

No. 679643.

Use Copying Ink only
on this Receipt.

U. S. LAND OFFICE, Visalia, Calif.

Feby. 24, 1912.

RECEIVED OF Lost Hills Mining Company,
(Name)

Crocker Bldg., San Francisco, the sum of Four
(Address.)

hundred and five Dollars and — Cents, — in
connection with Mineral Application SERIAL No.
03431, for:

NW. $\frac{1}{4}$	Section	30
Township 26 S., Range 21 E.,	M. D.	Meridian,
161.85 acres, at \$2.50 per acre.....		\$405.00
Fees		
Commissions		
Testimony fees: — words at — cents per		
100 words		
Contest fees: — words at — cents per		
100 words		
Transcripts of Records: — words at — cents per		
100 words.		

Total\$405.00

A. H. SWAIN,

No. 679643.

(Signature)

Receiver of Public Moneys.

This Receipt is evidence only of the receipt of the amount indicated, and must be issued at the time the money is received without regard to the subsequent allowance or rejection of the application, entry, etc., due notice of which will be given.

In case of error in this Receipt, notify the Receiver of Public Moneys where issued, and the Commissioner of the General Land Office, Washington, D. C.

In writing to the local land office or the General Land Office concerning the application or entry in connection with which this Receipt issued, always give the above SERIAL Number and the RECEIPT Number. [240]

EXHIBIT "K."

DEPARTMENT OF THE INTERIOR.

UNITED STATES LAND OFFICE.

Visalia, California, February 29, 1912.

The Commissioner of the General Land Office,
Washington, D. C.

Sir: We have the honor to transmit herewith a

Application 03431

complete record in Mineral Entry No. — for the
Lost Hills Placer Oil Claim, as follows:

1 Application for Patent.

— Field Notes, including Surveyor-General's certificate of improvements.

— Plat, Survey No. — mailed under separate cover.

Copy of Location Certificate (attached to application for patent).

1 Abstract of Title.

Articles of Incorporation (attached to application).

Power of Attorney (attached to application).

- Surveyor-General's Certificate of Improvements (not included in field notes).

Proof of Improvements—placer, legal subdivision (attached to application).

- Mineral Surveyor's Report on Placers (approved by United States Surveyor-General).

Proof that no known vein exists (attached to application).

- Affidavit, nonmineral character of mill site.

- Affidavit, use or occupancy of mill site.

- Proof of Posting Plat and Notice on the Claim (attached to application).

1 Proof of Continuous Posting during period of publication.

1 Certificate of Posting Plat and Notice in the United States Land Office.

Proof of Publication (attached to proof of continuous posting).

Agreement of Publisher (attached to application).

Adverse Claims—none. [241]

(Give serial No. of each adverse claim; if none, so state.)

- Court Certificates.

- Protests. Notice of, by C. F. D.

- Application to purchase (attached to proof of continuous posting).

- Sworn statement of all Charges and Fees paid (attached to proof of continuous posting).

- Receiver's Receipt.
- Register's Final Certificate.
- 1 Form 4-024b.
- 5 Inclosures.

GEO. W. STEWART,
Register.

Receiver. [242]

EXHIBIT "L."

DEPARTMENT OF THE INTERIOR,
UNITED STATES LAND OFFICE.

Visalia, California, February 29, 1912, 191—.

The Commissioner of the General Land Office,
Washington, D. C.

Sir: We have the honor to transmit herewith a
Application 03432

complete record in Mineral Entry No. — for the
Signal Placer Mining Claim, as follows:

- 1 Application for Patent.
- Field Notes, including Surveyor-General's certificate of improvements.
- Plat, Survey No. — mailed under separate cover.
- Copy of Location Certificate (attached to application for patent).
- 1 Abstract of Title.
- Articles of Incorporation (attached to application).
- Power of Attorney (attached to application).
- Surveyor-General's Certificate of Improvements (not included in field notes).

- Proof of Improvements—placer, legal subdivision (attached to application).
- Mineral Surveyor's Report on Placer (approved by United States Surveyor-General).
- Proof that no known vein exists (attached to application).
- Affidavit, nonmineral character of mill site.
- Affidavit, use or occupancy of mill site (attached to application).
- 1 Proof of Posting Plat and Notice on the Claim.
- 1 Proof of Continuous Posting during period of publication.
- Certificate of Posting Plat and notice in the United States Land Office.
- Proof of Publication (attached to proof of continuous posting).
- Agreement of Publisher (attached to application).
- Adverse Claims—none. [243]
(Give serial No. of each adverse claim; if none, so state.)
- Court Certificates.
- Protests, Notice of, by C. F. D.
- Application to purchase (attached to proof of continuous posting).
- Sworn statement of all Charges and fees Paid (attached to proof of continuous posting).
- Receiver's Receipt.

— Register's Final Certificate.

1 Form 4-024b.

5. Enclosures.

GEO. W. STEWART,
Register.

Receiver. [244]

EXHIBIT "M."

DEPARTMENT OF THE INTERIOR.
UNITED STATES LAND OFFICE.

Visalia, California, February 29, 1912. 191—

The Commissioner of the General Land Office,
Washington, D. C.

Sir: We have the honor to transmit herewith a
Application 03457

complete record in Mineral Entry No. — for the
Eagle Placer Mining claim, as follows:

1 Application for Patent.

— Field Notes, including Surveyor-General's cer-
tificate of improvements.

— Plat, Survey No. — mailed under separate
cover.

— Copy of Location Certificate (attached to appli-
cation for patent).

1 Abstract of Title.

Articles of Incorporation (attached to applica-
tion).

— Power of Attorney (attached to application.)

— Surveyor-General's Certificate of Improvements
(not included in field notes).

- Proof of Improvements—placer, legal subdivision (attached to application).
- Mineral Surveyor's Report on Placers (approved by United States Surveyor-General).
- Proof that no known vein exists (attached to application).
- Affidavit nonmineral character of mill-site.
- Affidavit, use or occupancy of mill-site.
- Proof of Posting Plat and Notice on the claim (attached to application).
- 1 Proof of Continuous Posting during period of Publication.
- 1 Certificate of Posting Plat and Notice in the United States Land Office.
- Proof of Publication (attached to proof of continuous posting).
- Agreement of Publisher (attached to application).
- Adverse Claims—none.

(Give serial No. of each adverse claim; if none,
so state.)

[245]

- Court Certificates.
- Protests. Notice of, by C. F. D.
- Application to purchase (attached to proof of continuous posting).
- Sworn Statement of all Charges and Fees Paid (attached to proof of continuous posting).
- Receiver's Receipt.

— Register's Final Certificate.

1 Form 4-024b.

5 Inclosures.

GEO. W. STEWART,
Register.

Receiver. [246]

EXHIBIT "N."

DEPARTMENT OF THE INTERIOR.

UNITED STATES LAND OFFICE.

Visalia, California, February 29, 1912, 191—.

The Commissioner of the General Land Office,
Washington, D. C.

Sir: We have the honor to transmit herewith a
(Application 03459
complete record in Mineral (Entry No. — for the
Judge Placer Mining claim, as follows:

- 1 Application for Patent.
- Field Notes, including Surveyor-General's certificate of improvements.
- Plat, Survey No. — mailed under separate cover.
- Copy of Location Certificate (attached to application for patent).
- 1 Abstract of Title.
- Articles of Incorporation (attached to application).
- Power of Attorney (attached to application).
- Surveyor-General's Certificate of Improvements (not included in field notes).

- Proof of Improvements—placer, legal subdivision (attached to application).
- Mineral Surveyor's Report on Placers (approved by United States Surveyor-General).
- Proof that no known vein exists (attached to application).
- Affidavit, nonmineral character of mill site.
- Affidavit, use or occupancy of mill site.
- Proof of Posting Plat and Notice on the Claim (attached to application).
- 1 Proof of Continuous Posting during period of publication.
- 1 Certificate of Posting Plat and Notice in the United States Land Office.
- Proof of Publication (attached to proof of continuous posting).
- Agreement of Publisher (attached to application).
- Adverse Claims—none.

(Give serial No. of each adverse claim; if none, so state.)

[247]

- Court Certificates.
- Protests. Notice of, by C. F. D.
- Application to purchase (attached to proof of continuous posting).
- Sworn Statement of all Charges and Fees Paid (attached to proof of continuous posting).
- Receiver's Receipt.

— Register's Final Certificate.

1 Form 4-024b.

5 Inclosures.

GEO W. STEWART,
Register.

Receiver. [248]

EXHIBIT "O."

DEPARTMENT OF THE INTERIOR.

UNITED STATES LAND OFFICE.

Visalia, California, February 29, 1912.

The Commissioner of the General Land Office,
Washington, D. C.

Sir: We have the honor to transmit herewith a

(Application 03448

complete record in Mineral (Entry No. — for the
Petroleum Placer Mining Claim, as follows:

1 Application for Patent.

— Field Notes, including Surveyor-General's certificate of improvements.

— Plat, Survey No. — mailed under separate cover.

— Copy of Location Certificate (attached to application for patent).

1 Abstract of Title.

— Articles of Incorporation (attached to application).

— Power of Attorney (attached to application).

— Surveyor-General's Certificate of Improvements (not included in field notes).

- Proof of Improvements—placer, legal subdivision (attached to application).
- Mineral Surveyor's Report on Placers (approved by United States Surveyor-General).
- Proof that no known vein exists (attached to application).
- Affidavit nonmineral character of mill site.
- Affidavit, use or occupancy of mill site.
- Proof of Posting Plat and Notice on the Claim (attached to application).
- 1 Proof of Continuous Posting during period of publication.
- 1 Certificate of Posting Plat and Notice in the United States Land Office.
- Proof of Publication (attached to proof of continuous posting).
- Agreement of Publisher (attached to application).
- Adverse Claims—none.

(Give serial No. of each adverse claim; if none,
so state.)

[249]

- Court certificates.
- Protests. Notice of, by *C. D. F.*
- Application to purchase (attached to proof of continuous posting).
- Sworn Statement of all Charges and Fees Paid (attached to proof of continuous posting).
- Receiver's Receipt.

— Register's Final Certificate.

1 Form 4-024b.

5 Inclosures.

GEO W. STEWART,
Register.

Receiver. [250]

EXHIBIT "P."

THIS INDENTURE made this eighteenth day of March, 1909, by and between the undersigned parties of the first part and LOST HILLS MINING COMPANY (a corporation), party of the second part, witnesseth:

That whereas, in February, 1907, the parties named herein located twenty-three Placer Mining Claims of one hundred and sixty acres each, there being a group of eight locators for each claim, which claims were located in Kern County, State of California, in township twenty-six south range twenty-one east, M. D. B. and M. and comprised all of sections eight, eighteen, twenty, twenty-eight, thirty-two, and the west half and southeast quarter of section thirty.

And whereas, T. E. Clark, E. L. Martin, Seth Smith, J. F. Jordan, D. C. Overall (WmL) and B. J. Ball (whose name by mistake was written *B. G. Ball* on the location notice), were each and every one of the locators on one of said claims; and E. D. Barton, J. J. Cortner, L. E. Hall, F. T. Hall, S. W. Hall and W. F. Hall, were each and every one of the locators on (WML) each of two of said claims; and Adolph

Levis, R. C. Hardin, William Lindemann, (whose name by mistake was written William Linderman on the location notice) and H. L. Parker, were each and every one of the locators of each and every of three of said claims; and A. H. Murray, Jr., and Hugh McPhaill were each, one of the locators of each and every of four of said claims; and A. R. Orr, J. Gillespie, J. W. Thompson, L. M. Frederick, B. L. Barney, C. W. Barrett, H. J. Light, H. J. Hoyt, and F. R. Hight were each and every one of the locators of each and every of five of said claims; and O. D. Barton was one of the locators of each and every of seven of said claims; and J. W. McCord was one of the locators of each and every of nine of said claims; and J. H. Butts, John Anderson and J. N. Hoyt were each and every, [251] one of the locators of each and every of ten of said claims; and H. Widmer and C. A. Butts were each, one of the locators of each and every of eleven of said claims; and Sarah McCord was one of the locators of each and every of twelve of said claims; and W. B. Wallace was one of the locators of each and every of twenty-one of said claims.

And whereas, all the aforesaid persons, said locators did on March 10th, 1908, enter into a mutual written agreement wherein they agreed to unite all their interests in all of said lands so that each and every of them should have an interest therein and share the profits to be derived therefrom in the proportion that the several interests as located bear to the whole acreage located and owned by all of them, and agreed not to sell, grant or encumber their in-

terests during the life of said agreement (which agreement is of record in Kern County and is yet alive).

And whereas, all of said persons, said locators, did, subsequently agree in writing that a corporation be formed with a capital stock of thirty-six thousand eight hundred shares of the par WBW value of one dollar per share to which corporation they each and all agreed to grant and convey all their right, title and interest in all of said lands and mining claims herein described, in consideration of each and every thereof receiving from said corporation two hundred shares of the capital stock thereof for each and every of said mining claims of which he was one of the locators.

And whereas, defendant, LOST HILLS MINING COMPANY, was organized and incorporated in pursuance of said agreement, and after notice to all of said locators, and at a regular meeting of its board of directors held on March 13, 1909, did adopt the following resolution as appears by the records of said corporation, to wit:

“Whereas in February, 1907, various persons located twenty-three [252] placer mining claims in township 26 south range 21 east M. D. B. & M., comprising all of sections 8, 18, 20, 28, 32 and the west half and southeast quarter of section 30. And whereas, the LOST HILLS MINING COMPANY has been incorporated in pursuance of an agreement of all of said persons by which agreement it was provided that a corporation should be formed with capital stock of \$26,800.00, divided into shares of the

par value of \$1.00 per share and that said persons would grant to such corporation all their right, title and interest in said lands and all thereof in consideration of such corporation issuing them severally, two hundred shares of the capital stock of such corporation for every equivalent of a twenty-acre interest therein, and this corporation having been formed under the provisions of such agreement.

It is resolved that this corporation purchase from each and all of said persons the locators of said lands or their successors in interest all their interest therein and pay therefor with shares of this corporation, giving therefor two hundred shares for the equivalent of a twenty-acre interest. Provided, however, that the several directors of this corporation being each the owner of one share of the capital stock, each and every thereof shall receive one share less than any other owner for his interest in said lands.

Resolved that the secretary hereof be authorized to receive and place on record in Kern County all deeds delivered in pursuance hereof, and that he be further authorized to deliver to said persons upon receiving their deeds certificates of shares of stock to be paid [253] to them for their several interests in said lands."

(In ink:) "W. B. W. The name W. F. Hall was by mistake erroneously written on one of the location notices of said mining claims "W. E. Hall."

NOW, THEREFORE, in pursuance of said agreement and said resolution and for the consideration

therein named, we, the undersigned parties of the first part do hereby grant, bargain, sell and convey to the party of the second part all our right, title and interest in and to the following described lands, to wit:

Sections eight, eighteen, twenty, twenty-eight, Thirty-two and the west half and southeast quarter of section thirty, all in township twenty-six south range twenty-one east Mount Diablo Base and Meridian and all the improvements thereon.

WITNESS the hands of the parties of the first part the day and year first above written.

W. B. Wallace.	Adolph Levis.
----------------	---------------

E. D. Barton.	R. C. Hardin.
---------------	---------------

John F. Jordan.	T. E. Clark.
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A. H. Murray, Jr.	A. R. Orr.
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Hugh McPhaill.	Seth Smith.
----------------	-------------

D. G. Overall.	B. J. Ball.
----------------	-------------

[254]

State of California,
County of Tulare,—ss.

On this thirtieth day of March, 1909, before me John G. Knox, a Notary Public in and for Tulare County, State of California, residing therein, duly commissioned and sworn, personally appeared Adolp Levis, R. C. Hardin, A. H. Murray, Jr., A. R. Orr, W. B. Wallace, Seth Smith, T. E. Clark, D. G. Overall, J. F. Jordan, B. J. Ball and Hugh McPaill, known to me to be the persons whose names are subscribed to the annexed instrument, and they each, duly acknowledged to me that *he* executed the same.

In Witness Whereof, I have hereto set my hand and affixed my official seal the day and year in this certificate first above written.

[Notarial Seal] JOHN G. KNOX,
Notary Public in and for Tulare County, State of
California.

State of California,
County of Tulare,—ss.

On this 25th day of March in the year 1909 before me Frank B. Britten, a Notary Public, personally appeared E. D. Barton, known to me to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same.

[Notarial Seal] FRANK B. BRITTEN,
Notary Public. [255]

W. F. Hall. Sarah McCord.

E. L. Martin.	C. W. Barrett.
J. J. Cortner.	H. J. Light.
L. E. Hall.	H. J. Hoyt.
F. T. Hall.	F. R. Hight.
S. W. Hall.	O. D. Barton.
William Lindemann.	J. W. McCord.
H. L. Parker.	J. H. Butts.
J. Gillespie.	John Anderson.
J. W. Thompson.	J. N. Hoyt.
L. M. Frederick.	C. A. Butts.
B. L. Barney.	H. Widmar.

April 13, 1909.

I hereby subscribe my name as witness to the signature of O. D. Barton. This instrument was signed by him in my presence.

WILLIAM LINDEMANN. [256]

State of California,
County of Fresno,—ss.

On this 10th day of April in the year one thousand nine hundred and nine before me, A. W. Johnson, a notary Public in and for said county and state, residing therein, duly commissioned and sworn, personally appeared L. M. Fredrick known to me to be the person described in, whose name is subscribed to and who executed the within instrument, and he acknowledged that he executed the same.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal at my office in said county, the day and year in this Certificate first above written.

[Notarial Seal] A. W. JOHNSON,
Notary Public in and for said County and State.

State of California,
County of Santa Clara,—ss.

On this 8th day of April, in the year one thousand nine hundred and nine before me, H. F. Dusing a Notary Public in and for the County of Santa Clara, personally appeared E. L. Martin known to me to be the person whose name —— subscribed to the within instrument, and acknowledged to me that she executed the same.

WITNESS my hand and Official Seal the day and year in this certificate first above written.

[Notarial Seal] H. F. DUSING,
Notary Public in and for the County of Santa Clara,
State of California.

State of California,
County of Fresno,—ss.

On this 9th day of April in the year one thousand nine hundred and nine before me H. C. Kerr, a Notary Public in and for the County of Fresno, personally appeared H. Widmer, known to me to be the same person whose name is subscribed to the within instrument, and he duly acknowledged to me that he executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal at my office in the County of Fresno, the day and year in this certificate first above written.

[Notary Seal] H. C. KERR,
Notary Public in and for the County of Fresno, State
of California. [257]

State of California,
County of Kings,—ss.

On this fifth day of April, 1909, before me Leon J. Israel, a Notary Public in and for Kings County, State of California residing therein, duly commissioned and sworn, personally appeared W. F. Hall, J. J. Cortner, L. E. Hall, F. T. Hall, S. W. Hall, William Lindemann, H. L. Parker, J. Gillespie, J. W. Thompson, B. L. Barney, C. M. Barrett, H. J. Light, H. J. Hoyt, F. R. Hight, J. W. McCord, J. H. Butts, John Anderson, J. N. Hoyt, C. A. Butts, Sarah McCord, known to me to be the persons whose names are subscribed to the annexed instrument, and they each, duly acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereto set my hand and affixed my official seal the day and year in this certificate first above written.

[Notarial Seal] LEON J. ISRAEL,
Notary Public in and for Kings County, State of
California.

[Endorsed]:

“34738.

“DEED.

“W. B. WALLACE, et al.

To

“LOST HILLS MINING COMPANY.

“March 18, 1909.

“Recorded at Request of

“Wm. Lindemann May 1, 1909.

“At 40 min. past 8 A. M.

in Book 209 of Deeds.

“Page 394, Kern County Records.

“Chas. A. Lee, Recorder.

“By _____,

“Deputy Recorder.

“37/7 10”

[258]

EXHIBIT “Q.”

AGREEMENT.

THIS AGREEMENT, Made and entered into this 19th day of December, 1908, by and between the undersigned owners of certain mining locations in Kern County, California, parties of the first part and Charles W. Barrett of San Jose, State of California, party of the second part,

WITNESSETH:

That, whereas, the parties of the first part are the owners of mining locations being certain mining claims located under the laws of the United States, and comprising all of Sections 8, 18, 20, 28, 32, and the West Half and Southeast quarter of Section 30, all in Township 26 S. Range 21 E., M. D. B. & M., and consisting of twenty-three claims of one hundred and sixty acres each.

The parties of the first part grant the party of the second part the right to enter upon any and all of said claims and prospects and explore the same for oil and mineral deposits of any kind, and to drill wells thereon for the purpose of developing oil and water.

The party of the second part agrees that upon the North or the South half of one of said sections of land to be selected by him, he will by July 1st, 1909, have a complete standard or rotary drilling rig and outfit with all necessary tools and appliances to commence drilling thereon and have the derrick erected and commence the actual work of drilling an oil well; and will thereafter, prosecute the work of drilling with reasonable diligence to a depth of two thousand feet, unless an oil well is developed at a lesser depth, which will yield at least fifty barrels of oil per day. [259]

On or before February 1st, 1909, the party of the second part shall select and designate the particular half section either the North or South half of the other full sections of said land which he proposes to drill upon and acquire title thereto under the terms of this agreement; and shall also select and

designate either the North half or the South half of the West half of said Section 30, and either the North half or the South half of the Southeast quarter of said Section 30, which he proposes to acquire title to under this agreement.

The party of the second party may at any time after making selections as aforesaid, commence drilling wells upon any or all of the tracts of land so selected.

No well shall be deemed completed until drilled to a depth of two thousand feet or until an oil well is developed at a lesser depth, which will yield fifty barrels of oil per day. It is agreed that within four months after the completion of the first well herein provided for, the party of the second part must, to avoid a forfeiture of his rights, to do so, commence the actual work of drilling another well for oil, upon another of said sections of land, and prosecute the work of drilling thereon with reasonable diligence, and upon the completion of any oil well herein provided for, the party of the second part must, in order to avoid a forfeiture of the right to do so, within four months from the time of completion of the last preceding well, commence the actual work of drilling a well for the development of oil upon some other tract of land selected by him as above provided, and prosecute the work with reasonable diligence.

The parties of the first part shall have the right personally or through their agent, to be present and inspect the operations whenever any work is being done under the terms of this [260] agreement, and

upon the completion of any well it shall be measured to determine its depth and the oil producing capacity, in the presence of the designated agent or agents of the parties of the first part.

The party of the second part agrees to keep an accurate log of each and every well drilled hereunder, showing the character of the strata, the depth and thickness thereof and the oil and oil sands and thickness thereof and the quantity of water and the depth thereof encountered or passed through in the work of drilling; which log shall at all times be subject to the inspection of the agent or agents of the parties of the first part, who may make copies thereof, and which copies the managing driller shall, upon request, certify to be correct.

As long as the right of party of the second part to drill wells for oil upon any of said tracts of land by virtue of this contract continues, the party of the second part agrees to perform the annual assessment work as required by law, by the United States Statutes, upon each and all of said twenty-three mining claims; said assessment work to consist of labor done or improvements made upon each of said claims, of the value of One Hundred Dollars annually.

Such assessment work shall be performed by January 1st, 1909, and proof of labor recorded by January 30th, 1909, and for each and every year thereafter, on or before November 1st; and upon failure to perform such work on any of said sections of land and record the proof thereof at the times as herein required during any year, the right and interest *here* of the party of the second part in such section of

land shall cease and be terminated without a written extension of time by the parties of the first part be granted. Provided, that after the present year, the party of the second part shall not be required to do the [261] annual assessment work upon the unselected part of any section of said land, upon which section they shall have completed a well drilled for developing oil.

All work performed and improvements made by the party of the second party upon any tract or tracts of said land selected by him as aforesaid, prior to the conveyance of said tract or tracts of land to the party of the second part, shall be deemed to have been done and made by said party of the second part as agent of the parties of the first part.

The parties of the first part promise and agree to convey to said party of the second part free of encumbrances, the half of each of said full section of land selected by them as aforesaid, upon which said party of the second part shall drill a well for developing oil to the depth of two thousand feet, or upon which he shall drill a well at a lesser depth that will yield fifty barrels of oil per day, and the half of the lands located and claimed by the parties of the first part in said Section 30, which the party of the second part shall have selected as aforesaid, free from incumbrance, upon the drilling of said party of the second part of a well upon said section 30, to a depth of two thousand feet, or upon the drilling of a well thereon to a lesser depth, that will yield fifty barrels of oil per day.

The parties of the first part further promise and

agree that of said full sections of said lands upon which the party of the second part shall first drill a well, they will in addition to conveying to the party of the second part, the half of said section of land, also convey to said party of the second part a quarter section thereof out of the remaining half section of said section, free from incumbrance. Provided, that the parties of the first part shall have the right to select and reserve one quarter [262] section in said unselected half section of land, and shall convey the remaining quarter section to said second party under the foregoing conditions said selection by said first parties shall be made within 30 days after the completion of such well.

Rights of way for pipe lines for water and oil, for telephone and telegraph lines, and for wagon roads and railroad onto and across any of said sections of land, are hereby reserved by the parties of the first part, and shall be reserved in any conveyances which may be made in pursuance of this agreement; and upon the conveyance of any portion of said sections of land to said party of the second part, similar rights for pipe lines for water and oil, for telegraph and telephone lines, and for wagon roads and railroads onto and cross any portion of said tracts of land reserved by the parties of the first part, or forfeited by said party of the second part shall also be conveyed to the party of the second part. In the event that any well is drilled by the said party of the second part upon any tract of said lands, and not completed, and the right of said party of the second part to acquire a title to the tract of land upon which the well shall have been drilled, shall be forfeited by

said party of the second part; the parties of the first part shall be given the option to purchase the casing which may be in such uncompleted well, at a reasonable price, and have such casing left in such uncompleted well.

Time is of the essence of this contract.

This agreement is made and executed in duplicate.

Witness our hands this day and year aforesaid.

A. H. Murray, Jr.	J. Gillespie.	
John F. Jordan.	H. L. Parker.	
T. E. Clark.	J. M. Anderson.	[263]
R. C. Hardin.	W. F. Hall.	
A. Levis.	H. J. Hoyt.	
B. J. Ball.	F. R. Hight.	
Wm. Lindermann.	J. W. Thompson.	
E. L. Martin.	H. Widmer.	
Hugh McPhaill.	Jas. W. McCord.	
D. G. Overall.	J. J. Cortner.	
E. D. Barton.	F. T. Hall.	
Seth Smith.	C. A. Butts.	
O. D. Barton.	L. M. Frederick.	
Sarah McCord.	C. W. Barrett.	
S. W. Hall.	A. R. Orr.	
H. J. Light.	W. B. Wallace.	
L. E. Hall.	J. N. Hoyt.	
J. H. Butts.	B. L. Barney.	

Parties of the First Part.

W. B. Wallace.	J. N. Hoyt.
A. R. Orr.	B. L. Barney.
J. H. Butts.	

Their Attorneys in Fact.

C. W. Barrett,
Party of the Second Part.

State of California,
County of Kings,—ss.

On this 6th day of January, in the year of our Lord 1909, before me, Geo. L. Bliss, a Notary Public in and for said County and State, residing therein duly commissioned and sworn, personally appeared J. N. Hoyt, J. H. Butts, B. L. Barney, known [264] to me to be the persons described in and whose names are subscribed to the within instrument as the attorneys in fact of A. H. Murray, Jr., John F. Jordan, T. E. Clark, R. C. Hardin, A. Levis, B. J. Ball, Wm. Lindermann, E. L. Martin, Hugh McPhaill, D. G. Overall, E. D. Barton, Seth Smith, O. D. Barton, Sara McCord, J. Gillespi, H. L. Parker, J. M. Anderson, W. F. Hall, H. J. Hoyt, F. R. Hight, J. W. Thompson, H. Widmar, Jas. W. McCord, J. J. Cortner, F. T. Hall, C. A. Butts, L. M. Frederick, C. W. Barrett, S. W. Hall, H. J. Light, L. E. Hall, and the said J. M. Hoyt, J. H. Butts and B. L. Barney acknowledged to me that they subscribed (or caused to be subscribed) the names as mentioned above thereto as principals and they each subscribed their names as attorney in fact.

In Witness Whereof, I have hereunto set my hand and affixed my official seal, at my office in said County of Kings, the day and year in this certificate first above written.

[Seal]

GEO. L. BLISS,

Notary Public in and for the County of Kings, State of California.

State of California,
County of Kings,—ss.

On this 6th day of January, in the year one thousand nine hundred and nine, 1909, before me, Geo. L. Bliss, a Notary Public in and for said County of Kings, State of California, residing therein, duly commissioned and sworn, personally appeared J. N. Hoyt, J. H. Butts and B. L. Barney, known to me to be the persons described herein, whose names are subscribed to and who executed the within instrument and they acknowledged to me that they executed the same.

In Witness Whereof, I have hereunto set my hand and [265] affixed my official seal in the County of Kings, the day and year in this certificate first above written.

[Seal] GEO. L. BLISS,
Notary Public in and for the said County of Kings,
State of California.

State of California,
County of Tulare,—ss.

On this 22d day of December, 1908, before me, John G. Knox, a Notary Public in and for said County and State, residing therein, duly commissioned and sworn, personally appeared W. B. Wallace and A. R. Orr, known to me to be the persons described in and whose names are subscribed to the annexed instrument as the attorneys in fact of A. H. Murray, Jr., John F. Jordan, T. E. Clark, R. C. Hardin, A. Levis, B. J. Ball, Wm Lindermann, E. L. Martin, Hugh McPhaill, D. G. Overall, E. D. Bar-

ton, Seth Smith, O. D. Barton, Sarah McCord, S. W. Hall, H. J. Light, L. E. Hall, J. Gillespie, H. L. Parker, J. M. Anderson, W. F. Hall, H. J. Hoyt, F. R. Hight, J. W. Thompson, H. Widmer, Jas. W. McCord, J. J. Cortner, F. T. Hall, C. A. Butts, C. W. Barrett, L. M. Frederick, A. R. Orr, W. B. Wallace.

And the said W. B. Wallace and A. R. Orr, acknowledged to me that they subscribed (or caused to be subscribed) the names as mentioned above, thereto as principals and they each subscribed their names as attorney in fact.

In Witness Whereof, I have hereunto set my hand and affixed my official seal at my office, in said County of Tulare, the day and year in this certificate first above written.

[Seal]

JOHN G. KNOX,

Notary Public in and for the County of Tulare, State
of California. [266]

State of California,
County of Tulare,—ss.

On this 22d day of December, 1908, before me John G. Knox, a Notary Public in and for said County and State, residing therein, duly commissioned and sworn, personally appeared W. B. Wallace and A. R. Orr, known to me to be the persons described in and whose names are subscribed to the annexed instrument and they duly acknowledged to me that they executed the same.

In Witness Whereof, I have hereunto set my hand and affixed my official seal at my office, in said

County of Tulare, the day and year in this certificate first above written.

[Seal] JOHN G. KNOX,
Notary Public in and for the County of Tulare, State
of California.

Recorded at request of C. W. Barrett, Mar. 16,
1909, at 40 Min. past 8 A. M. in Book 18 of Agree-
ments, page 134, Kern County records.

CHAS. A. LEE,
Recorder.

State of California,
County of Kern.

I, Chas. A. Lee, County Recorder of said County,
do hereby certify that the annexed is a whole, true
and correct copy of an original, as will appear by
reference to Book 18 of Agreements, page 134, now
in my office, and that said copy has been compared
with the original, and is a correct transcript there-
from.

WITNESS my hand and official seal this 23d day
of March, A. D. 1915.

CHAS. A. LEE,
Recorder in and for the County of Kern, California.
By Fred W. Lee,
Deputy.

[Endorsed]: "Barrett Contract. LOST HILLS
LOCATORS."

[Revenue Stamp.] [267]

EXHIBIT "R."

THIS AGREEMENT, made this 27th day of Octo-
ber, 1909, by and between the LOST HILLS MIN-

ING COMPANY, a corporation, the first party and J. D. MARTIN and E. R. DUDLEY, the second parties.

WITNESSETH: That whereas, the said first party is the owner by virtue of Mineral Placer Locations of the following described lands in Kern County, to wit:

The Southwest quarter of Section eighteen (18), the West half and Southeast quarter of Section thirty (30), in Township Twenty-six (26) South, Range Twenty-one (21) East, M. D. B. & M;

AND WHEREAS, said second parties are desirous of drilling a well or wells for oil upon said lands for an interest therein;

IT IS HEREBY AGREED by and between said parties as follows: said second parties are granted the right for the purpose of this agreement to enter upon said lands and occupy all buildings thereon, and to examine, explore and drill wells for water or oil, and develop any and all mineral deposits thereon.

The said second parties agree that within sixty days from the date hereof, unless necessarily delayed by rainy weather, they will have a complete drilling rig upon said land and commence drilling an oil well thereon, and will with diligence prosecute the work of drilling such well to completion as hereinafter defined.

If they shall drill such well on said lands in said section thirty, the well shall be deemed completed when one thousand feet deep and finished with at least eight-inch casing at the bottom; provided that it shall also be deemed completed at any lesser depth,

or at any depth, at which oil is discovered and developed in sufficient quantity to yield at least twenty barrels per day.

If they shall drill such well on said lands in said Section eighteen, the well shall be deemed completed when fifteen [268] hundred feet deep and finished with at least six-inch casing at the bottom; provided that it shall also be deemed completed at any lesser depth, or at any depth, at which oil is discovered and developed in sufficient quantity to yield at least twenty barrels of oil per day.

The first party agrees that upon the execution of this agreement, it will execute and place in escrow in the National Bank of Visalia, with a duplicate hereof, a deed properly acknowledged granting and conveying to said second parties, free from liens or encumbrances, the following described lands:

The East half of the West half and the South half of the Southeast quarter of said Section thirty; also the West half of the Southwest quarter of said Section eighteen, such deed to be held in escrow by said bank and delivered by it to the second parties upon the completion of one well as above provided on any of said lands.

The second parties, provided they continue the work diligently, may drill as many wells as they choose upon said lands and the first completed well shall entitle them to receive the deed so placed in escrow.

In case of the abandonment of this contract by the second parties, the casings within the well drilled by them shall not be drawn by them nor any permanent

improvements thereon removed.

The second parties agree to keep an accurate log of all wells drilled, showing the various formations and rock strata, and thickness thereof, so far as penetrated by the drill; the exact depth at which water, gas, oil or asphaltum, if any is found, which log shall be subject to the inspection of the agent or agents of the first party at all times, who may make copies thereof; such [269] agent or agents shall have the privilege of being present when any drilling or work in furtherance of this contract is being done on said lands, and said second parties shall promptly notify the agent or agents of the first party when in the course of drilling they shall strike water, gas, oil or asphaltum.

When a well shall be deemed completed by the second parties, notice thereof in writing shall be immediately given to the first party, and thereupon measurements to determine whether or not such well has been completed shall be made in the presence of the agent or agents of the first party.

The second parties agree to do all assessment work required by the U. S. Laws for the present year on each of the three quarter sections in said Section thirty, and the Southwest quarter of said Section eighteen, being all the lands first herein described and they shall annually do the assessment work on all of said lands until they shall have completed one well thereon.

All work done and improvements made upon any quarter section of aforesaid land by the second parties prior to the time they shall have completed one

well thereon, shall be done and made by the second parties as agents of the first party.

Upon the completion of a well by the second parties upon any quarter section of the lands first above described, and the discovery and development of sufficient oil thereon to warrant application for a patent thereto, the first party will at the request of the second parties apply to the U. S. Government for a patent to such quarter section of land, each party to pay to the Government one-half of the purchase price for said land.

After the second parties shall commence the work of drilling on said lands, cessation of work for three months prior to the completion of a well shall be deemed an abandonment of this [270] contract and all rights and interests in said lands acquired by the second parties shall be forfeited.

This is the essence of this agreement.

IN WITNESS WHEREOF, the first party has by resolution of its board of directors caused this agreement to be executed in its corporate name by its President and Secretary, and under its corporate seal; and said second parties have subscribed their names hereto, all on the day and year first above written.

Executed in duplicate.

LOST HILLS MINING COMPANY,

By J. H. BUTTS,

President,

WM. ENDERMANN,

Secretary,

First Party.

J. D MARTIN and

E. R. DUDLEY,

Second Parties. [271]

For value received, the undersigned, J. D. Martin and E. R. Dudley, the parties of the second part to the within and foregoing agreement, do hereby grant, sell, transfer, assign and convey all of their and each of their rights and interests in, to and under the within and foregoing agreement, unto the Lakeshore Oil Company, a corporation.

Witness our hands this 30th day of October, 1909.

J. D. MARTIN.

E. R. DUDLEY.

For Value Received, the undersigned, Lakeshore Oil Company, a corporation, hereby agrees to keep and perform all the covenants and agreements to be kept and performed on the part of the parties of the second part to the within and foregoing agreement.

Dated Visalia, Cal., Oct. 30th, 1909.

LAKESHORE OIL CO.

By C. J. GEDDINGS,

President.

By J. SUB JOHNSON,

Secretary. [272]

EXHIBIT "S."

THIS AGREEMENT, made this 27th day of October, 1909, by and between the LOST HILLS MINING COMPANY, a corporation, the first party, and J. D. MARTIN AND E. R. DUDLEY, the second parties;

WITNESSETH: That Whereas said first party is the owner by virtue of Mineral Placer Locations of the following described lands in Kern County, California, to wit:

The North half and the Southeast quarter of Section Eighteen (18), and Section Thirty-two (32), in Township Twenty-six (26) South, Range Twenty-one East, M. D. B. & M.;

And whereas, said second parties are desirous of drilling wells for oil upon said lands for interests therein;

It is hereby agreed by and between said parties as follows:

Said second parties are granted the right for the purpose of this agreement to enter upon said lands and occupy all buildings thereon, and to examine, explore and drill wells for water or oil and develop any and all valuable mineral deposits thereon.

The second parties agree that within six months from *the hereof* unless necessarily delayed by rainy weather, they will have a complete drilling rig upon said land and commence drilling an oil well thereon, and will prosecute the work of drilling a well to completion as hereinafter defined, and upon the completion of one well, they will promptly remove their drilling rig to another quarter section of said land

and with diligence commence the drilling of another well, and carry the work forward in the same manner until they shall have completed a well on every quarter section of said lands; provided, that if after completing the first, or any subsequent well, they shall elect not to drill other wells under the terms of this agreement, they shall so [273] notify the first party in writing, and thereupon, and upon the surrender of possession of the quarter sections of land upon which they elect not to proceed, they shall be released from all obligations to drill any further wells under this agreement and shall forfeit all their interests hereunder in the lands upon which they shall elect not to drill.

The first well drilled upon said section eighteen shall be deemed completed when fifteen hundred feet deep and finished with at least six-inch casing at the bottom; provided, that it shall also be deemed completed at any lesser depth, or any depth, at which oil is discovered and developed in sufficient quantity to yield at least twenty barrels per day. All other wells drilled on said section eighteen shall be deemed completed when so drilled and finished to a depth of fifteen hundred feet, unless at a lesser depth sufficient oil is discovered and developed to warrant the issuance of a U. S. patent for the quarter section drilled upon.

Wells drilled hereunder on said section thirty-two shall be deemed completed when drilled and finished in all respects as provided for the completion of wells on section eighteen, with the exception that the maximum depth required on said section shall be one thou-

sand feet instead of fifteen hundred feet.

The first well drilled on said section thirty-two shall be deemed completed at a lessor depth than one thousand feet or any depth, whenever oil therein shall be discovered and developed in sufficient quantity to yield twenty barrels of oil per day.

It is agreed that upon the drilling and completion of wells as herein provided upon the several quarter sections of said lands, the second parties shall become entitled to parts thereof as soon as wells are completed thereon, as follows: [274]

In said section eighteen, the North half and the Southwest quarter of the Northwest quarter; the North half and Southeast quarter of the Northeast quarter; the East half of the Southeast quarter;

In said Section thirty-two, the east half of the Northwest quarter, the east half of the Southwest quarter; the West half of the Northeast quarter; the West half of the Southeast quarter;

The first party agrees that when the second parties shall commence drilling a well upon any of the said tracts of land, it will make, execute and place in escrow in the National Bank of Visalia, a deed granting and conveying all the right, title and interest in the part of that tract of land to which the second party may become entitled hereunder, and free and clear of all liens and incumbrances, conditioned that it be delivered to the second parties upon the completion of a well upon said tract of land. The second parties agree that they will prosecute the work of drilling wells upon said lands with diligence, and that if after the completion of any well drilled thereon, they shall

for a period of four months fail to commence drilling another well on another tract of said land, they will hereby forfeit their right and interest in any and all other quarter sections not drilled upon by them.

In case of abandonment of this contract as to any well commenced, the casing within said well must not be drawn by the second parties nor any permanent improvements removed.

The second parties agree to keep an accurate log of all wells drilled, showing the various formations and rock stratas and thickness thereof so far as penetrated or drilled into; the exact depth at which water, gas, oil or asphaltum, if any, is found; which log shall be subject to the inspection of the agent or agents of the first party at all times, who may make copies thereof; such [275] agent or agents shall have the privilege of being present when drilling or work in furtherance of this contract is being done on said lands, and said second parties shall promptly notify the first party when in the course of drilling they shall strike water, gas, oil or asphaltum.

When a well shall be deemed completed by the second parties, notice thereof in writing shall be immediately given to the first party, and thereupon measurements to determine whether or not the well has been completed shall be made in the presence of the agent or agents of the first party.

The first party agrees to do the necessary assessment work on the said seven quarter sections of said land, required for the present year;

Whereas, the first party is also the owner by virtue of mining locations, of sections Eight, Twenty and

Twenty-eight, in said township and range, which lands said second parties are desirous of developing oil upon for a part interest therein, the second parties are granted the right to enter upon and explore and drill oil wells upon said lands, and upon their drilling an oil well upon any quarter section thereof to the depth of one thousand feet or until oil in sufficient quantity to warrant the issuance of a patent thereto is developed, they shall be entitled to a deed conveying to them one-half of the quantity of land therein saved to the first part thereby and to which patent may be obtained.

When the second parties shall commence drilling an oil well upon any of said sections, they shall do all assessment work required by law to be done for the year upon which they shall commence work, and annually thereafter until they shall have abandoned their contract as to any quarter section thereof or have earned title to a part thereof under this agreement. -[276]

All work done and improvements made upon any quarter section of aforesaid land by the second party prior to the time they shall have completed a well thereon shall be done and made by the second parties as agents of the first party.

Upon the completion of a well by the second parties upon any quarter section of said land and the discovery and development thereon of sufficient oil to justify application for a patent therefor, the first party will on demand of the second party apply to the U. S. Government for a patent to such quarter section of land. The parties hereto to each pay part of the

purchase price of said land in proportion to the quantity each shall be entitled to out of said quarter section of land.

IN WITNESS WHEREOF, the first party has by resolution of its Board of Directors caused this agreement to be executed in its corporate name by its President and Secretary, and under its corporate seal. And said second parties have subscribed their names to this agreement.

Executed in Duplicate.

LOST HILLS MINING COMPANY.

By J. H. BUTTE,

President,

WM. ENDERMANN,

Secretary,

First Party.

J. D. MARTIN,

E. R. DUDLEY,

Second Parties. [277]

EXHIBIT "T."

THIS AGREEMENT, made and entered into this 8th day of November, 1909, by and between the LOST HILLS MINING COMPANY, a corporation, the party of the first part, and J. D. MARTIN and E. R. DUDLEY, the parties of the second part, WITNESSETH:

WHEREAS, a written agreement, dated October 27th, 1909, was entered into between said Lost Hills Mining Company as first party, and J. D. Martin and E. R. Dudley, as second parties, wherein and whereby said Lost Hills Mining Company agreed to convey

unto said J. D. Martin and E. R. Dudley, or their assigns, the East half of the West half and the South half of the Southeast quarter of Section Thirty (30), and the West half of the Southwest quarter of Section Eighteen (18), in Township Twenty-six (26) South, Range Twenty-one (21) East, of the Mount Diablo Base and Meridian, containing three hundred and twenty acres upon the terms, conditions and agreements in said agreement stated:

Now, therefore, for value received and in consideration of the premises, it is mutually agreed between the parties hereto that said agreement dated October 27th, 1909, shall be modified in the following particulars, to wit:

First. The paragraph of said agreement, dated October 27th, 1909, which reads as follows:

“When a well shall be deemed completed by the second parties, notice thereof in writing shall be immediately given to the first party, and thereupon measurements to determine whether or not such well has been completed shall be made in the presence of the agent or agents of the first party”— be and the same is modified to be and read as follows, to wit: “When a well shall be deemed completed by the second parties or assigns, notice thereof in writing shall be delivered to the President or Secretary of the first party or other agent [278] appointed by the first party, and measurements to determine whether or not such well has been completed shall be made in the presence of the agent or agents of the first party, unless such agent or agents shall for ten days after such notice is delivered, fail to be

present at such well or decline to attend to witness the measurements to be made, in which case the second parties, or assigns, may proceed and make such measurements and note the result in the log book of such well, and the same in such event shall be conclusive on the parties hereto and their assigns as to the accuracy of such measurements.”

Second. The paragraph of said agreement, dated October 27th, 1909, which reads as follows: “The second parties agree to do all assessment work required by the U. S. Laws for the present year, on each of the three quarter sections in said Section Thirty, and the Southwest quarter of said Section Eighteen, being all the lands first herein described, and they shall annually do the assessment work on all of said lands until they shall have completed one well thereon,”—be and the same is modified to be and read as follows: “The second parties agree to do all assessment work required by the U. S. Laws for the present year, on each of the three quarter sections in said Section Thirty, and the Southwest quarter of said Section Eighteen, being all the lands first herein described, and they shall annually do the assessment work on all of said lands during the existence of this agreement until they shall have completed one well on each of said tracts of land.”

IN WITNESS WHEREOF, said first party hereto by resolution of its Board of Directors, has caused these presents to be signed by its President and Secretary, and the seal of said corporation to be hereunto affixed, and said second parties hereto have hereunto [279] set their hands, in duplicate, the

day and year first above written.

LOST HILLS MINING COMPANY.

By J. H. BUTTS,

Its President.

WM. ENDERMANN,

Its Secretary.

J. D. MARTIN,

E. R. DUDLEY,

State of California,

County of Tulare,—ss.

On this 8th day of November, in the year nineteen hundred and nine, before me, E. C. Farnsworth, a Notary Public in and for said County of Tulare, State of California, personally appear J. D. Martin and E. R. Dudley, known to me to be the persons whose names are subscribed to the within instrument, and acknowledged that they executed the same.

Witness my hand and official seal the day and year in this Certificate first above written.

E. C. FARNSWORTH,

Notary Public in and for said County of Tulare,
California.

For value received, the undersigned, J. D. Martin and E. R. Dudley, the parties of the second part, to the within and foregoing agreement, do hereby grant, sell, transfer, assign and convey, all of their and each of their rights and interests in, to and under the within and foregoing agreement unto the Lakeshore Oil Company, a corporation.

Witness our hands this 8th day of December, 1909.

J. D. MARTIN.

E. R. DUDLEY.

For value received, the undersigned, Lakeshore Oil Company, a corporation, hereby agrees to keep and perform all the covenants and agreements to be kept and performed on the part of the parties of the second part to the within and foregoing agreement.

Dated, Visalia, Cal., December 8th, 1909.

LAKE SHORE OIL COMPANY,

By C. J. GEDDINGS,

President.

J. SUB JOHNSON,

Secretary. [280]

EXHIBIT "U."

THIS AGREEMENT, Made this 2nd day of November, 1910, by and between the LOST HILLS MINING COMPANY, a corporation, the first party, and J. D. MARTIN and E. R. DUDLEY, the second parties, WITNESSETH:

That Whereas about October 27, 1909, said first party and said second parties entered into a written agreement by which said second parties agreed to drill wells for oil and do other work upon certain lands held by the first party by virtue of mineral placer locations comprising Section Eighteen (18), the West half and Southeast quarter of Section Thirty (30) all of Section Thirty-two (32), and also Section Eight (8), Section Twenty (20), and Section Twenty-eight (28), all of Township Twenty-six (26) South, Range Twenty-one (21) East of the Mount Diablo Base and Meridian; and

Whereas the terms of said contract were by a subsequent written agreement between said parties on November 8, 1909, modified;

Now, Therefore, in consideration of the mutual agreements of said parties herein contained, said first agreement as modified by said second agreement is further modified as follows: Said second parties promise and agree that upon each and every of the following described tracts of land in said Sections Eighteen (18), Thirty (30) and Thirty-two (32), upon which they have not already placed and now maintain a drilling rig for the development of oil wells, they will proceed at once to place a complete drilling rig suitable for drilling an oil well and will promptly commence and diligently prosecute to completion, as provided in said first contract, the work of drilling for oil on each and every of said tracts of land, to wit:

The Southwest quarter of said Section Thirty (30), the Southeast quarter of said Section Thirty (30), the Southeast quarter of said Section Eighteen (18); the Southwest quarter of the Northeast quarter of said Section (18), the Northwest quarter of Section Eighteen (18); the Southwest quarter of said Section Eighteen (18); the Northwest quarter of said Section Thirty-two (32); the Northeast quarter of said Section Thirty-two (32); the Southwest quarter of said Section Thirty-two (32); and the Southeast quarter of said Section Thirty-two (32).

It is further agreed that upon the carrying out of the terms of this contract as to said Section Eighteen by the second parties, the first party will exchange the Southwest quarter of the Northeast quarter of said Section Eighteen for either the Southeast quarter of the Northeast quarter or the Northwest quarter of

the Northeast quarter of said Section Eighteen, provided, they shall save either or both thereof so as to enable the first party to get title thereto under the claims of the first party, and if they fail to so save the same, then they shall give in exchange for said Southwest quarter of the Northeast quarter of said Section Eighteen the Northeast quarter of the Northwest quarter of said Section Eighteen and shall relinquish all their claims thereto under the contracts heretofore made by the parties hereto.

The second parties further agree that they will continue the work of developing the several quarter sections of land on said Section Twenty-eight (28), and with diligence use all lawful and reasonable measures to protect the same, and agree that the [281] first party shall be entitled to reserve therefrom as its own the Southwest quarter of the Northwest quarter of said Section Twenty-eight (28); the Northwest quarter of the Southwest quarter of said Section Twenty-eight (28); and the South half of the Southeast quarter of said Section Twenty-eight (28), provided that said second parties shall not become entitled to any land in any quarter section of said Twenty-eight (28) until they shall have drilled an oil well thereon which will produce sufficient oil to warrant the application in the U. S. Land Office for a patent thereto; all the rest of said Section Twenty-eight (28), upon the fulfillment of this agreement shall become the property of the second parties.

In consideration of the foregoing agreement, said first party agrees that the second party shall become entitled to a quit-claim deed conveying to said second

parties all the first party's right, title and interest in said Section Eight (8) and said Section Twenty (20).

All work done and improvements made hereunder on any of said lands under the terms of this contract shall be done and made by them as agents of the first party hereto.

Nothing herein contained shall be construed as modifying or varying the terms of said first and second agreements except as herein set forth.

It is further agreed that said second parties may at their own cost and expense, but not otherwise, prosecute and defend such Court and Land Office proceedings, in the name of said first party for the purpose of protecting the title or possession of said Section Eight (8), and said Section Twenty (20), and also in said Section Twenty-eight (28), as they shall deem advisable.

It is further agreed that this agreement, or any provision thereof, shall not in any way affect any right of the Lakeshore Oil Company, a corporation.

IN WITNESS WHEREOF, the party of the first part has by resolution of its Board of Directors, duly adopted and recorded in its corporate records, this day signed this agreement under its corporate seal, and the parties of the second part have also this day signed this agreement.

Executed in duplicate this 2d day of November,
1910.

LOST HILLS MINING COMPANY.

By J. H. BUTTS,

Its President,

WM. LINDEMANN,

Its Secretary,

Party of the First Part.

J. D. MARTIN.

E. R. DUDLEY.

Parties of the Second Part. [282]

EXHIBIT "V."

Dec. 3, 1915.

(Rubber Stamp)

03431 (pencil)

1002 (ink)

DEPARTMENT OF THE INTERIOR.

UNITED STATES LAND OFFICE.

VISALIA, CALIFORNIA.

November 19, 1915.

RECEIVED

Dec. 1, 1915.

Second Field Division,

O. D. Barton, Visalia, Cal.

U. T. Clotfelter, Atty.,

409 Kirckhoff Bldg.,

Los Angeles, Cal. (circular rubber stamp)

Sir: By authority of General Land Office letter
"fs" dated Nov. 12, 1913, you are hereby notified
that a special agent of that office has filed the fol-
lowing charges against the validity of your Mineral
entry No. 03431, made Nov. 18, 1911, for NW. ¼ Sec.

30, T. 26 S., R. 21 E., M. D. M., to wit:

1. No discovery of oil or gas has been made upon the said N. W. $\frac{1}{4}$ Sec. 30, T. 26 S., R. 21 E., M. D. M. at the date of withdrawal of September 27, 1909.
2. Neither the applicant company nor its predecessors in interest were in diligent prosecution of work leading to a discovery of oil or gas on the above described land at the date of said withdrawal of September 27, 1909.
3. No valid discovery of gypsum has been made upon the said NW. $\frac{1}{4}$ of Sec. 30, T. 26 S., R. 21 E., M. D. M.
4. The claim that said NW. $\frac{1}{4}$ Sec. 30, T. 26 S., R. 21 E., M. D. M., contains valuable deposits of gypsum is not made in good faith with the bona fide intention of developing and extracting gypsum from the land, but as a subterfuge for obtaining title that is chiefly valuable for deposits of petroleum.

You are notified that if you fail to file in this office, within thirty days of date of service of this notice, a written or printed answer, under oath, denying each of said charges or showing a state of facts rendering said charges immaterial, and applying for a hearing to determine the truth of said charges and answer, or if you fail to appear at a hearing applied for, your said above entry or claim will be forthwith reported to the commissioner of the General Land Office for rejection or cancellation.

Respectfully,
(Sgd.) FRANK LANING,
Register. [283]

In reply please refer to FS Visalia 03431 LEE.

1 ex. to R and R.

1 x C. F. D.)

1 x J. D. R.) in ink

RECEIVED

Nov. 17, 1915.

Second Field Division.

3837 (pencil)

(circular rubber stamp.)

DEPARTMENT OF THE INTERIOR.

GENERAL LAND OFFICE.

WASHINGTON.

November 12, 1915.

Address only the

Commissioner of the General

Land Office.

Directing adverse proceedings.

Register and Receiver,

03431 (pencil)

Visalia, California.

Sirs: November 18, 1911, the Lost Hills Mining Company made Mineral Application No. 03431, for Lost Hills Placer oil mining claim, embracing the NW. $\frac{1}{4}$ of Sec. 30, T. 26 S., R. 21 E., M. D. M.

Said land is included in departmental oil land withdrawal of September 27, 1909, and was embraced in Petroleum Reserve No. 2 by Executive order of July 2, 1910. On December 2, 1914, a special agent of this office submitted an adverse report relative to this application.

You are directed to proceed in accordance with Circular of January 19, 1911, and in the notice provided in paragraphs 3, 4 and 5 thereof you will state that

a mineral inspector of the General Land Office charges that

- (1) No discovery of oil or gas had been made upon the said NW. $\frac{1}{4}$ of Sec. 30, T. 26 S., R. 21 E., M. D. M., at the date of withdrawal of September 27, 1909.
- (2) Neither the applicant company nor its predecessors in interest were in diligent prosecution of work leading to a discovery of oil or gas on the above described land at the date of said withdrawal of September 27, 1909.

[284]

- (3) No valid discovery of gypsum has been made upon the said NW. $\frac{1}{4}$ of Sec. 30, T. 26 S., R. 21 E., M. D. M.
- (4) The claim that said NW. $\frac{1}{4}$ of Sec. 30, T. 26 S., R. 21 E., M. D. M., contains valuable deposits of gypsum is not made in good faith with the bona fide intention of developing and extracting gypsum from the land, but as a subterfuge for obtaining title to land that is chiefly valuable for deposits of petroleum.

Should these charges fail, the said application will nevertheless be held for cancellation, unless claimant shall file a supplemental abstract covering the period of November 16, 17 and 18, 1911 (See paragraph 42, mining regulations).

In due time report.

Very respectfully,
(Sgd.) CLAY TALLMAN,
Commissioner.

D. A. MILLRICK,

(Rubber stamp)

EXHIBIT "W."

Dec. 3, 1915.

(Rubber stamp)

"W"

03448 (ink)

1001 (ink)

DEPARTMENT OF THE INTERIOR.

UNITED STATES LAND OFFICE.

VISALIA, CALIFORNIA.

November 18, 1915, RECEIVED

Dec. 1, 1915.

Second Field Division.

(circular rubber stamp)

U. T. Clotfelter, Atty.,
409 Kirckhoff Bldg.,
Los Angeles, Cal.

Sir: By authority of General Land Office letter "FS" dated Nov. 12, 1915, you are hereby notified that a special agent of that office has filed the following charges against the validity of your Mineral entry, No. 03448, made Nov. 25, 1911, for NW. $\frac{1}{4}$ Sec. 32, T. 26 S., R. 21 E., M. D. M., to wit:

1. No. discovery of oil or gas has been made upon the said NW. $\frac{1}{4}$ Sec. 32, T. 26 S., R. 21 E., M. D. M., at the date of withdrawal of September 27, 1909.
2. Neither the applicant company nor its predecessors in interest were in diligent prosecution of work leading to a discovery of oil or gas on the above described land at the date of said withdrawal of September 27, 1909.
3. No valid discovery of gypsum has been made

upon the said N. W. $\frac{1}{4}$ Sec. 32, T. 26 S., R. 21 E., M. D. M.

4. The claim that said NW. $\frac{1}{4}$ Sec. 32, T. 26 S., R. 21 E., M. D. M., contains valuable deposits of gypsum is not made in good faith with the bona fide intention of developing and extracting gypsum from the land, but as a subterfuge for obtaining title to land that is chiefly valuable for deposits of petroleum.

You are notified that if you fail to file in this office, within thirty days of date of service of this notice, a written or printed answer, under oath, denying each of said charges, or showing a state of facts rendering said charges immaterial, and applying for a hearing to determine the truth of said charges and answer, or if you fail to appear at a hearing applied for, your said above entry or claim will be forthwith reported to the Commissioner of the General Land Office for rejection or cancellation.

Respectfully,

(Sgd.) FRANK LANING,

Register. [286]

In reply please refer to FS Visalia 03448 LEE.

1 ex. to C. F. D. RECEIVED

1 x J. D. R. Nov. 17, 1915,

Second Field Division.

(Circular rubber stamp)

3829 (pencil)

SEE (rubber stamp)

DEPARTMENT OF THE INTERIOR.
GENERAL LAND OFFICE.
WASHINGTON.

November 12, 1915.

Address only the
Commissioner of the General
Land Office.

Directing adverse proceedings.
Register and Receiver,
Visalia, California. 03448 (pencil)

Sirs: November 25, 1911, the Lost Hills Mining Company made Mineral Application No. 03448, for Petroleum Placer mining claim, embracing the NW. $\frac{1}{4}$ of Sec. 32, T. 26 S., R. 21 E., M. D. M.

Said land is included in departmental oil land withdrawal of September 27, 1909, and was embraced in Petroleum Reserve No. 2 by Executive order of July 2, 1910. On December 2, 1914, a special agent of this office submitted an adverse report relative to this application.

You are directed to proceed in accordance with Circular of January 19, 1911, and in the notice provided in paragraphs 3, 4 and 5 thereof you will state that a mineral inspector of the General Land Office charges that

- (1) No discovery of oil or gas had been made upon said NW. $\frac{1}{4}$ of Sec. 32, T. 26 S., R. 21 E., M. D. M., at the date of withdrawal of September 27, 1909.
- (2) Neither the applicant company nor its predecessors in interest were in diligent prosecu-

tion of work leading to a discovery of oil or gas on the above described land at the date of said withdrawal of September 27, 1909.

[287]

- (3) No valid discovery of gypsum has been made upon the said NW. $\frac{1}{4}$ of Sec. 32, T. 26 S., R. 21 E., M. D. M.
- (4) The claim that said NW $\frac{1}{4}$ of Sec. 32, T. 26 S., R. 21 E., M. D. M., contains valuable deposits of gypsum is not made in good faith with the bona fide intention of developing and extracting gypsum from the land, but as a subterfuge for obtaining title to land that is chiefly valuable for deposits of petroleum.

In due time report.

Very respectfully,
(Sgd.) CLAY TALLMAN,
Commissioner.

D. A. MILLRICK.

(Rubber stamp) [288]

EXHIBIT "X."

Dec. 3, 1915.

"X"

RECEIVED

(rubber stamp)

Dec. 1, 1915.

Second Field Division.

(circular rubber stamp)

DEPARTMENT OF THE INTERIOR.

UNITED STATES LAND OFFICE.

VISALIA, CALIFORNIA,

November 19, 1915.

03457

1003

(in ink)

U. T. Clotfelter, Atty.

409 Kirckhoff Bldg.,

Los Angeles, Cal.

Sir: By authority of General Land Office letter "FS" dated Nov. 12, 1915, you are hereby notified that a special agent of that office has filed the following charges against the validity of your Mineral entry, No. 03457, made Dec. 2, 1911, for NE. $\frac{1}{4}$ Sec. 32, T. 26 S., R. 21 E., M. D. M., to wit:

- (1) No discovery of oil or gas has been made upon the said NE. $\frac{1}{4}$ Sec. 32, T. 26 S., R. 21 E., M. D. M., at the date of withdrawal of September 27, 1909.
2. Neither the applicant company nor its predecessors in interest were in diligent prosecution of work leading to a discovery of oil or gas on the above described land at the date of said withdrawal of September 27, 1909.

3. No valid discovery of gypsum has been made upon said NE. $\frac{1}{4}$ of Sec. 32, T. 26 S., R. 21 E., M. D. M.
4. The claim that said NE. $\frac{1}{4}$ Sec. 32, T. 26 S., R. 21 E., M. D. M., contains valuable deposits of gypsum is not made in good faith with the *bona fide* intention of developing and extracting gypsum from the land, but as a subterfuge for obtaining title to land that is chiefly valuable for deposits of petroleum.

You are notified that if you fail to file in this office, within thirty days of date of service of this notice, a written or printed answer, under oath, denying each of said charges, or showing a state of facts rendering said charges immaterial, and applying for a hearing to determine the truth of said charges and answer, or if you fail to appear at a hearing applied for, your said above entry or claim will be forthwith reported to the Commissioner of the General Land Office for rejection or cancellation.

Respectfully.

(Sgd.) FRANK LANING,

Register. [289]

In reply please refer to FS Visalia 03457 Lee.

RECEIVED

Nov. 17, 1915.

Second Field Division.

(Circular Rubber Stamp)

1 ex. to C. F. D.

1 x. J. D. R.

3834 (pencil)

SEE (rubber stamp)

DEPARTMENT OF THE INTERIOR.
GENERAL LAND OFFICE.
WASHINGTON.

November 12, 1915,

Address only the
Commissioner of the General
Land Office.

03457 (pencil) Directing adverse proceedings.
Register and Receiver,
Visalia, California.

Sirs: December 2, 1911, the Lost Hills Mining Company made Mineral Application No. 03457 for the Eagle Placer mining claim, embracing the NE. $\frac{1}{4}$ of Sec. 32, T. 26 S., R. 21 E., M. D. M.

Said land is included in departmental oil land withdrawal of September 27, 1909, and was embraced in Petroleum Reserve No. 2 by Executive order of July 2, 1910. On December 2, 1914, a special agent of this office submitted an adverse report relative to this application.

You are directed to proceed in accordance with Circular of January 19, 1911, and in the notice provided in paragraphs 3, 4 and 5 thereof you will state that a mineral inspector of the General Land Office charges that

- (1) No discovery of oil or gas had been made upon the said NE. $\frac{1}{4}$ of Sec. 32, T. 26 S., R. 21 E., M. D. M., at the date of withdrawal of September 27, 1909.
- (2) Neither the applicant company nor its predecessors in interest were in diligent prosecution of work leading to a discovery of oil or

gas on the above described land at the date of said withdrawal of September 27, 1909.

- (3) No valid discovery of gypsum has been made upon the said NE. $\frac{1}{4}$ of Sec. 32, T. 26 S., R. 21 E., M. D. M. [290]
- (4) The claim that said NE. $\frac{1}{4}$ of Sec. 32, T. 26 S., R. 21 E., M. D. M., contains valuable deposits of gypsum is not made in good faith with the *bona fide* intention of developing and extracting gypsum from the land, but as a subterfuge for obtaining title to land that is chiefly valuable for deposits of petroleum.

In due time report.

Very respectfully,
(Sgd.) CLAY TALLMAN,
Commissioner.

D. A. MILLRICK.

(Rubber stamp)

10-23-RSC. [291]

EXHIBIT "Y."

Dec. 3, 1915.

(rubber stamp)

"Y"

DEPARTMENT OF THE INTERIOR.

UNITED STATES LAND OFFICE.

Visalia, California,

November 30, 1915.

RECEIVED

Dec. 1, 1915.

Second Field Division.

(Circular Rubber stamp)

U. T. Clotfelter, Atty.

409 Kirckhoff Bldg.,

Los Angeles, Cal.

Sir: By authority of General Land Office letter "FS" dated November 23, 1915, you are hereby notified that a special agent of that office has filed the following charges against the validity of your Mineral entry, No. 03459, made Dec. 2, 1911, for SW. $\frac{1}{4}$ Sec. 32, T. 26 S., R. 21 E., M. D. M.

1. No discovery of oil or gas has been made upon the said S. W. $\frac{1}{4}$ of Sec. 32, T. 26 S., R. 21 E., M. D. M. at the date of withdrawal of October 7, 1910.
2. Neither the applicant company nor its predecessors in interest were in diligent prosecution of work leading to a discovery of oil or gas on the above-described land at the date of said withdrawal of October 7, 1910.

3. No valid discovery of gypsum has been made upon the said SW. $\frac{1}{4}$ Sec. 32, T. 26 S., R. 21 E., M. D. M.
4. The claim that said SW. $\frac{1}{4}$ Sec. 32, T. 26 S., R. 21 E., M. D. M., contains valuable deposits of gypsum is not made in good faith with the *bona fide* intention of developing and extracting gypsum from the land, but as a subterfuge for obtaining title to land that is chiefly valuable for deposits of petroleum.

You are notified that if you fail to file in this office, within thirty days of date of service of this notice, a written or printed answer, under oath, denying each of said charges, or showing a state of facts rendering said charges immaterial, and applying for a hearing to determine the truth of said charges and answer, or if you fail to appear at a hearing applied for your said above entry or claim will be forthwith reported to the Commissioner of the General Land Office for rejection or cancellation.

Respectfully,

(Sgd.) FRANK LANING,

Register. [292]

Noted C. P. K.
(in pencil)

3830 (in pencil)

RECEIVED

Nov. 29, 1915.

Second Field Division.

(circular rubber stamp)

In reply please refer to FS Visalia 03459 LEE

1 ex. to C. F. D.

1 x. — Dept. Justice)

1 x — J. D. R.) in ink

SEE (ink)

DEPARTMENT OF THE INTERIOR.

General Land Office.

Washington.

November 23, 1915.

03459 (pencil)

Address only the
Commissioner of the General
Land Office.

Directing Adverse proceedings.
Register and Receiver,
Visalia, California.

Sirs: December 2, 1911, the Lost Hills Mining Company made Mineral Application No. 03459, for Judge Placer mining claim, embracing the SW. $\frac{1}{4}$ of Sec. 32, T. 26 S., R. 21 E. M. D. M.

Said land was included in Petroleum Reserve No. 13, created by Executive order of October 7, 1910. On December 2, 1914, a special agent of this office submitted an adverse report relative to this application.

You are directed to proceed in accordance with Circular of January 19, 1911, and in the notice provided in paragraphs 3, 4 and 5 thereof you will state that a mineral inspector of the General Land Office charges that

- (1) No discovery of oil or gas had been made upon the said SW. $\frac{1}{4}$ Sec. 32, T. 26 S., R. 21 E.,

M. D. M., at the date of withdrawal of October 7, 1910. [293]

- (2) Neither the applicant company nor its predecessors in interest were in diligent prosecution of work leading to a discovery of oil or gas on the above-described land at the date of said withdrawal of October 7, 1910.
- (3) No valid discovery of gypsum has been made upon the said SW. $\frac{1}{4}$ Sec. 32, T. 26 S., R. 21 E., M. D. M.
- (4) The claim that said SW. $\frac{1}{4}$ Sec. 32, T. 26 S., R. 21 E., M. D. M., contains valuable deposits of gypsum is not made in good faith with the *bona fide* intention of developing and extracting gypsum from the land, but as a subterfuge for obtaining title to land that is chiefly valuable for deposits of petroleum.

In due time report.

Very respectfully,

(Sgd.) CLAY TALLMAN,

Commissioner.

D. A. MILLRICK.

(Rubber stamp)

10-23 RSC. [294]

EXHIBIT "Z."

Dec. 3, 1915.

(rubber stamp)

DEPARTMENT OF THE INTERIOR.
UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

1000

(in ink)

November 19, 1915.

RECEIVED

Dec. 1, 1915.

Second Field Division.
(Circular rubber stamp)

O. B. Barton, Visalia, Calif.

U. T. Clotfelter, Atty.,
409 Kirckhoff Bldg.,
Los Angeles, Cal.

Sir: By authority of General Land Office letter "FS" dated Nov. 12, 1915, you are hereby notified that a special agent of that office has filed the following charges against the validity of your Mineral entry, No. 03432, made Nov. 18, 1911, for SE. $\frac{1}{4}$ Sec. 30, T. 26 S., R. 21 E., M. D. M., to wit:

1. No discovery of oil or gas has been made upon the said SE. $\frac{1}{4}$ Sec. 30, T. 26 S., R. 21 E., M. D. M., at the date of said withdrawal of September 27, 1909.
2. Neither the applicant Company nor its predecessors in interest were in diligent prosecution of work leading to a discovery of oil or gas on the above-described land at the date of said withdrawal of September 27, 1909.

3. No valid discovery of gypsum has been made upon said land, SE. $\frac{1}{4}$ Sec. 30, T. 26 S., R. 21 E., M. D. M.
4. The claim that said SE. $\frac{1}{4}$ of Sec. 30, T. 26 S., R. 21 E., M. D. M., contains valuable deposits is not made in good faith with the *bona fide* intention of developing and extracting gypsum from the land, but as a subterfuge for obtaining title to land that is chiefly valuable for deposits of petroleum.

You are notified that if you fail to file in this office, within thirty days of date of service of this notice, a written or printed answer, under oath, denying each of said charges, or showing a state of facts rendering said charges immaterial, and applying for a hearing to determine the truth of said charges and answer, or if you fail to appear at a hearing applied for, your said above entry or claim will be forthwith reported to the Commissioner of the General Land Office for rejection or cancellation.

Respectfully,
(Sgd.) FRANK LANING,
Register. [295]

In reply please refer to FS. Visalia 03432 LEE.

RECEIVED.

Nov. 17, 1915.

Second Field Division.
(Circular Rubber stamp)

1 ex. to C. F. D.

1 x. J. D. R.

#3838

(in pencil)

DEPARTMENT OF THE INTERIOR.
GENERAL LAND OFFICE.
WASHINGTON.

03432

(in pencil)

November 12, 1915.

Address only the
Commissioner of the General
Land Office.

Directing Adverse Proceedings.
Register and Receiver,
Visalia, California.

Sirs: November 18, 1911, the Lost Hills Mining Company made Mineral Application No. 03432, for the Signal Placer mining claim embracing the SE. $\frac{1}{4}$ of Sec. 30, T. 26 S., R. 21 E., M. D. M.

Said land is included in departmental oil land withdrawal of September 27, 1909, and was embraced in Petroleum Reserve No. 2 by Executive order of July 2, 1910. On December 2, 1914, a special agent of this office submitted an adverse report relative to this application.

You are directed to proceed in accordance with Circular of January 19, 1911, and in the notice provided in paragraphs 3, 4 and 5 thereof you will state that a mineral inspector of the General Land Office charges that

- (1) No discovery of oil or gas had been made upon the said SE. $\frac{1}{4}$ of Sec. 30, T. 26 S., R. 21 E., M. D. M., at the date of withdrawal of September 27, 1909.

- (2) Neither the applicant company nor its predecessors in interest were in diligent prosecution of work leading to a discovery of oil or gas on the above-described land at the date of said withdrawal of September 27, 1909.
[296]
- (3) No valid discovery of gypsum has been made upon the said SE. $\frac{1}{4}$ of Sec. 30, T. 26 S., R. 21 E., M. D. M.
- (4) The claim that said SE. $\frac{1}{4}$ of Sec. 30, T. 26 S., R. 21 E., M. D. M., contains valuable deposits of gypsum is not made in good faith with the *bona fide* intention of developing and extracting gypsum from the land, but as a subterfuge for obtaining title to land that is chiefly valuable for deposits of petroleum.

Should these charges fail, the said application will nevertheless be held for cancellation unless claimant shall file a supplemental abstract covering the period of November 16, 17 and 18, 1911 (See paragraph 42, Mining Regulations).

In due time report.

Very respectfully,

(Sgd.) CLAY TALLMAN,

Commissioner.

D. A. MILLRICK.

(Rubber stamp)

10-23 RSC. [297]

EXHIBIT "AA."

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

In the Matter of the Application of the LOST HILLS MINING COMPANY, a Corporation, for patent to the LOST HILLS PLACER MINING CLAIM, embracing the NW. $\frac{1}{4}$ of Section 30, T. 26 S., R. 21 E., M. D. M., Kern County, California.

State of California,

City and County of San Francisco,—ss.

Wellington Gregg, Jr., being first duly sworn deposes and says: that he is a citizen of the United States and a resident of the State of California, and over the age of twenty-one years; that he is the vice-president of the Lost Hills Mining Company, a corporation, the applicant for patent above described, and makes, verifies and files this answer to charges contained in a letter "F. S. Visalia 03431" of the Commissioner of the General Land Office to the Register and Receiver of Visalia, California, dated Washington, November 12, 1915, and to the notice embracing said charges issued by the Register and Receiver of the Visalia Land Office, dated November 19, 1915; that answering said charges said applicant:

1. Admits that no discovery of oil or gas was made upon the NW. $\frac{1}{4}$ of Section 30, Township 26 S., Range 21 E., M. D. M. at the date of the withdrawal of September 27, 1909, but denies that said applicant, or its predecessors in interest, was not in the diligent prosecution of work leading to the dis-

covery of oil or gas on the above described land at the date of said withdrawal of September 27, 1909; On the contrary, this affiant alleges that on and prior to September 27, 1909, said applicant, the Lost Hills Mining Company aforesaid, was in the diligent prosecution of work leading to the discovery of oil or gas and oil and gas on the above described [298] land and continued in the diligent prosecution of said work until oil and gas were discovered thereon, during the years 1910-1911.

2. Denies that no valid discovery of gypsum has been made upon said land: Denies that the claim of said applicant that the said land contained valuable deposits of gypsum is not made in good faith or with the *bona fide* intention of developing and extracting gypsum from the land. Denies that said gypsum claim of said applicant was made as a subterfuge for obtaining title to land that is chiefly valuable for deposits of petroleum: Denies that said mineral application was not made for the *bona fide* purpose of developing a gypsum placer claim.

As a further answer to the charges contained in paragraphs 3 and 4 of said notice and said charges, applicant demurs thereto, and contends that said charges contained in paragraphs 3 and 4 do not state facts sufficient to warrant adverse proceedings against said application, or to justify the cancellation of applicant's application.

WHEREFORE applicant asks that a hearing be ordered upon said charges and this answer thereto and that thereupon said charges be dismissed and

patent be issued to applicant as prayed for in its said application.

Said applicant hereby appoints Joseph D. Redding, Crocker Building, San Francisco, California, and D. E. Perkins, National Bank of Visalia Building, Visalia, California, as its attorneys and requests that all papers relating to said matters be served on its said attorneys.

WELLINGTON GREGG, Jr.

Subscribed and sworn to before me this 9 day of December, 1915.

W. H. HEALEY,
Notary Public in and for the City and County of
San Francisco, State of California. [299]

Mr. DUNNE.—We offer in evidence a copy of the application for patent to the lands involved in A-37, and ask to have it marked Exhibit “A” in A-37, United States v. Devil’s Den.

(Exhibit “A” in A-37 is as follows:)

**Exhibit “A” in A-37—Copy of Proceedings Before
Visalia Land Office.**

This notice must be IMMEDIATELY forwarded to the General Land Office, duplicate to be filed with the case for transmittal with the record.

4-024b,

DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,
VISALIA, CALIFORNIA,
(Place)

August 8, 1911.

(Date)

NOTICE OF FILING MINERAL APPLICATION.

MINERAL APPLICATION SERIAL No. 03280.

The Commissioner of the

General Land Office:

Sir: On Aug. 2nd, 1911, Devil's Den Cons. Oil Company filed Mineral Application Serial No. 03280 for the Consolidated Placer Mining Claim, embracing

(List alphabetically all locations applied for)
NE. $\frac{1}{4}$ situate in Section 30, Township 26 South, Range 21 E., M. D. Meridian, Kern County.

Very respectfully,

GEO. W. STEWART,

Register.

Received

Aug. 14, 1911.

G. L. O.

NOTE: This notice must show serial No.; date of filing; survey No.; if lode or surveyed placer; alphabetical list of all locations; name or names of applicant or applicants; description if taken by legal subdivisions; section, township, range; mining dis-

strict and county; and notations of exclusions.

6-2056

S. & E. M. D. M.

Posted in V 29-106. Aug. 19, 1911. [300]

This notice must be IMMEDIATELY forwarded to the General Land Office, duplicate to be filed with the case for transmittal with the record.

4-024b.

DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,
VISALIA, CALIFORNIA,

(Place)

August 8, 1911.

(Date)

NOTICE OF FILING MINERAL APPLICATION.

MINERAL APPLICATION SERIAL No. 03280.

The Commissioner of the

General Land Office:

Sir: On August 2d, 1911, I. T. Bell, attorney in fact for Devil's Den Cons. Oil Company filed Mineral Application Serial No. 03280 for the Consolidated

(List alphabetically all locations applied for)
Placer Mining Claim, being the NE. $\frac{1}{4}$ situate in Section 30, Township 26 S. Range 21 E., M. D. Meridian, Kern County.

Very respectfully,

GEO. W. STEWART,

Register.

Received

September 5, 1911.

G. L. O.

NOTE: This notice must show serial No.; date of filing; survey No.; if lode or surveyed placer; alphabetical list of all locations; name or names of applicant or applicants; description if taken by legal subdivisions; section, township, range; mining district and county and notations of exclusions.

6-2056

S. & E. M. D. M.

Posted in V 29-106. [301]

Aug. 2, 1911.

ABSTRACT OF TITLE,

to

03280

THE CONSOLIDATED PLACER MINING
COMPANY,

embracing the NE. $\frac{1}{4}$ of fractional Section 30 in Township 26 South, Range 21 East, M. D. B. & M. in the County of Kern, State of California; made for D. E. Perkins, Esq., Visalia, California.

Compiled by the Kern County Abstract Company, Bakersfield, California.

(Thereafter follows a complete abstract of the title as shown by the records of Kern County covering the aforesaid land.) [302]

4-252f.

(This letter of transmission must invariably be used in forwarding the "complete record" in a mineral application or entry, as directed by paragraph 73 of the Mining Circular. Too much care cannot

be exercised to see that the schedule is correctly and comprehensibly filled out. Each entry should be forwarded by separate letter.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES LAND OFFICE.

Visalia, California, November 30, 1911.

The Commissioner of the General Land Office,
Washington, D. C.

Sir: We have the honor to transmit herewith a
03280

complete record in Mineral (Application 03280 for
(Entry No. 679391
the CONSOLIDATED PLACER MINING claim,
as follows:

- 1 Application for Patent.
- Field Notes, including Surveyor-General's certificate of improvements.
- Plat, Survey No. ——— mailed under separate cover.
- 1 Copy of Location Certificate (attached to application for patent).
- 1 Abstract of Title.
- 1 Affidavits of Citizenship, or Articles of Incorporation (attached to application for patent).
- 1 Power of Attorney.
- Surveyor-General's Certificate of Improvements (not included in field notes).
- 1 Proof of Improvements—placer, legal subdivision
- Mineral Surveyor's Report on Placers (approved by United States Surveyor-General).

- 1 Proof that no known vein exists.
- Affidavit, nonmineral character of mill site.
- Affidavit, use or occupancy of mill site.
- 1 Proof of Posting Plat and Notice on the Claim.
- 1 Proof of Continuous Posting during period of publication. [303]
- 1 Certificate of Posting Plat and Notice in the United States Land Office.
- 1 Proof of Publication.
- 1 Agreement of Publisher.
- Adverse Claims—none.
(Give serial No. of each adverse claim; if none, so state.)
- Court Certificates.
- 1 Protests. Notice by C. F. D.
- 1 Application to purchase.
- 1 Sworn Statement of all Charges and Fees Paid.
- Receiver's Receipt.
- Register's Final Certificate.
- 1 Form 4-024b.
- 16 Inclosures,

GEO. W. STEWART,
Register.

Receiver. [304]

November 10, 1911.

Withdrawn.

Received

Aug. 9, 1911,

Second Field Division.

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

03280

Serial No. —.

In the Matter of the Application of DEVIL'S DEN
CONSOLIDATED OIL COMPANY, a Cor-
poration, for a Patent to CONSOLIDATED
PLACER MINING CLAIM Embracing NE.
 $\frac{1}{4}$ Sec. 30 T. 26 S. R. 21 E., M. D. M.

NOTICE OF APPLICATION FOR PATENT.

Notice is hereby given that in pursuance of Chapter Six of Title Thirty-two of the Revised Statutes of the United States, the Devil's Den Consolidated Oil Company, a corporation, whose principal place of business is at Visalia, Tulare County, California, by I. T. Bell its agent and attorney-in-fact, whose postoffice address is Visalia, Tulare County, California, claiming to own the following described placer mining claim, to wit: the Consolidated Placer Mining Claim comprising the Northeast quarter of Section thirty (30) in Township Twenty-six (26) South, Range Twenty-one (21) East, of the Mount Diablo Base and Meridian, containing one hundred and sixty (160) acres according to the system of Public Land Surveys of the United States, is about to make application to the United States for a patent to said placer mining claim.

The notice of location of said Consolidated Placer Mining Claim was duly recorded in the office of the County Recorder of the County of Kern, State of

California, on February 23d, 1907, in Book 40 of Mining Records, Page 286.

Any and all persons claiming adversely the mining grounds and premises above described and applied for are hereby notified that unless their adverse claims are duly filed according to law, and the regulations thereunder, within the time prescribed by law, with the Register of the United States Land Office at Visalia, California, they will be barred by virtue of the provisions of said Statute.

Dated this 2d day of August, 1911.

GEO. W. STEWART,

Register.

Date of first publication August —, 1911.

(Rubber stamp:)

PROTEST

against the validity of this entry if filed in this office.

F. C. DEZENDORF,

Chief of Field Division,

Nov. 9th, 1911.

(Date) [305]

This notice must be IMMEDIATELY forwarded to the General Land Office, duplicate to be filed with the case for transmittal with the record.

4-024b.

DEPARTMENT OF THE INTERIOR,

General Land Office.

Visalia, California.

(Place)

August 8, 1911.

(Date)

NOTICE OF FILING MINERAL APPLICATION.

MINERAL APPLICATION SERIAL No. 03280.
679311.

The Commissioner of the General Land Office:

Sir: On August 2d, 1911, I. T. Bell, attorney in fact for Devil's Den Cons. Oil Company filed Mineral Application Serial No. 03280 for the Consolidated
(List alphabetically all locations applied for)
Placer Mining Claim, being the NE. $\frac{1}{4}$ situate in Section 30, Township 26 S., Range 21 E., M. D. Meridian, Kern County.

Very respectfully,

GEO. W. STEWART,

Register.

NOTE: This notice must show serial No.; date of filing, survey No.; if lode or surveyed placer; alphabetical list of all locations; Name or names of applicant or applicants; description if taken by legal subdivisions; section, township, range, mining district and county; and notations of exclusions.

6-2056

S. & E. M. D. M.

Posted in V 29-106. [306]

Aug. 2, 1911.

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

In the Matter of the Application of DEVIL'S DEN
CONSOLIDATED OIL COMPANY, a Corporation, for a Patent to CONSOLIDATED
PLACER MINING CLAIM Embracing NE.
1/4 Sec. 30 T. 26 S. R. 21 E., M. D. M.

RESOLUTION APPOINTING AGENT—03280.

Resolved that I. T. Bell be and he is hereby appointed the agent and attorney in fact of the Devil's Den Consolidated Oil Company, a corporation, to apply for and obtain a patent from the United States to the Consolidated Placer Mining Claim comprising the Northeast quarter of Section Thirty (30) Township Twenty-six (26) South, Range Twenty-one (21) East Mount Diablo Base and Meridian, containing one hundred and sixty (160) acres, according to the system of Public Land Surveys of the United States, and I. T. Bell is hereby authorized and directed to sign, execute and verify all necessary papers and documents for the purpose of obtaining such patent for and on behalf of said corporation, and to do or cause to be done all things necessary or proper in or about said application.

Office of the Devil's Den Consolidated Oil Company,
City of Visalia,
County of Tulare, State of California,—ss.

I hereby certify that the foregoing is a full, true and correct copy of a resolution adopted by the Board of Directors of Devil's Den Consolidated Oil Com-

pany at a meeting duly assembled and held on the 17th day of June, 1911.

In witness whereof I have hereunto set my hand and [307] affixed the corporate seal of said corporation on the 31st day of July, 1911.

[Seal]

I. T. BELL,

Secretary of Devil's Den Consolidated Oil Company.

[308]

Aug. 2, 1911.

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

Serial No. 03280.

In the Matter of the Application of DEVIL'S DEN
CONSOLIDATED OIL COMPANY, a Cor-
poration, for a Patent to CONSOLIDATED
PLACER MINING CLAIM Embracing NE.
¼ Sec. 30 T. 26 S. R. 21 E., M. D. M.

PROOF OF POSTING NOTICE (Claimant).

State of California,

County of _____.

I. T. Bell, being first duly sworn, deposes and says: That he is a citizen of the United States over the age of twenty-one years; that his postoffice address is Visalia, California; that he is the agent and attorney in fact for the Devil's Den Consolidated Oil Company, applicant for patent to the placer mining claim comprising the Northeast quarter of Section Thirty (30) in Township Twenty-six (26) South, Range Twenty-one (21) East of the Mount Diablo Base and Meridian, containing one hundred and sixty (160) acres according to the system of Public

Land Surveys of the United States.

That on the 30th day of July, 1911, he posted a notice of the intention of said applicant to apply for a patent to said mining claim, in a conspicuous place on the land embraced therein; that said notice was posted by being securely fastened to a board, securely planted upon said land and near the N. W. corner thereof; that said notice was posted at a convenient height to be seen, read and examined, and that said notice as so posted could be readily seen, read and examined; that a true copy of the notice posted as aforesaid is annexed hereto, marked Exhibit "A" and made a part hereof.

I. T. BELL. [309]

Subscribed and sworn to before me this 30th day of July, 1911, and I hereby certify that I consider the above-named affiant a credible and reliable man; that the foregoing affidavit was read by him before his signature was affixed thereto and the oath made by him.

[Seal]

JNO. T. GREEN,
Notary Public in and for Said County of Kern, State
of California. [310]

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

Serial No. —.

In the Matter of the Application of DEVIL'S DEN
CONSOLIDATED OIL COMPANY, a Cor-
poration, for a Patent to CONSOLIDATED
PLACER MINING CLAIM Embracing NE.
1/4 Sec. 30 T. 26 S. R. 21 E., M. D. M.

PROOF OF POSTING NOTICE (Witnesses).

State of California,
County of —.

W. E. Jones and R. O. Buckley, being first duly sworn, each for himself and not one for the other, deposes and says: That he is a citizen of the United States and over the age of twenty-one years; that he is not interested in any way in the application for patent mentioned in the caption hereof or the lands covered thereby; that he is well acquainted with the placer mining claim comprising the Northeast quarter of Section Thirty (30) in Township Twenty-six (26) South, Range Twenty-one (21) East of the Mount Diablo Base and Meridian, containing one hundred and sixty (160) acres according to the system of Public Land Surveys of the United States.

That he was present on the 30th day of July, 1911, and saw I. T. Bell, agent and attorney in fact for the Devil's Den Consolidated Oil Company, applicant for patent in the above-entitled proceedings, post the notice of intention of said applicant to apply for a patent to the said placer mining claim; that said notice was then and there posted by said I. T. Bell in a conspicuous place upon the land embraced in said claim by being securely fastened to a board securely planted upon said land and near the N. W. corner [311] thereof; that said notice was posted at a convenient height to be seen, read and examined and as so posted said notice could be readily seen, read and examined; that a full and true copy of the notice posted as aforesaid is attached hereto, marked Ex-

hibit "A" and made a part of this affidavit.

(Signed) W. E. JONES.

" R. O. BUCKLEY.

Subscribed and sworn to before me this 30th day of July, 1911, and I hereby certify that I consider the above-named affiants credible and reliable men; that the foregoing affidavit was read by them before their signatures were affixed thereto and the oath made by them.

[Seal]

(Signed) JNO. T. GREEN,

Notary Public in and for Said County of Kern, State of California. [312]

EXHIBIT "A."

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

Serial No. —.

In the Matter of the Application of DEVIL'S DEN
CONSOLIDATED OIL COMPANY, a Cor-
poration, for a Patent to CONSOLIDATED
PLACER MINING CLAIM Embracing NE.
1/4 Sec. 30 T. 26 S. R. 21 E., M. D. M.

NOTICE OF APPLICATION FOR PATENT.

Notice is hereby given that in pursuance of Chapter Six of Title Thirty-two of the Revised Statutes of the United States, the Devil's Den Consolidated Oil Company, a corporation, whose principal place of business is at Visalia, Tulare County, California, by I. T. Bell its agent and attorney-in-fact, whose postoffice address is Visalia, Tulare County, California, owning and claiming to own the following de-

scribed placer mining claim, to wit: the Consolidated Placer Mining Claim comprising the Northeast quarter of Section thirty (30) in Township Twenty-six (26) South, Range Twenty-one (21) East, of the Mount Diablo Base and Meridian, containing one hundred and sixty (160) acres according to the system of Public Land Surveys of the United States, is about to make application to the United States for a patent to said placer mining claim.

The notice of location of said Consolidated Placer Mining Claim was duly recorded in the office of the County Recorder of the County of Kern, State of California, on February 23d, 1907, in Book 40 of Mining Records, Page 286.

Any and all persons claiming adversely the mining grounds and premises above described and applied for are hereby notified that unless their adverse claims are duly filed according to law, and the regulations thereunder, within the time prescribed by law, with the Register of the United States Land Office at Visalia, California, they will be barred by virtue of the provisions of said Statute.

Dated and posted on the ground this 30th day of July, 1911.

DEVIL'S DEN CONSOLIDATED OIL
COMPANY.

By I. T. BELL,

Its Agent and Attorney-in-Fact.

Witnesses to posting:

W. E. JONES,

R. O. BUCKLEY. [313]

Aug. 2, 1911.

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

Serial No. 03280-679085.

In the Matter of the Application of DEVIL'S DEN
CONSOLIDAED OIL COMPANY, a Cor-
poration, for a Patent to CONSOLIDATED
PLACER MINING CLAIM, Embracing NE.
 $\frac{1}{4}$ Sec. 30 T. 26 S. R. 21 E., M. D. M.

APPLICATION FOR PATENT.

To the Register and Receiver of the United States
Land Office, Visalia, California.

State of California,
County of Tulare,—ss.

I. T. Bell, being first duly sworn, deposes and says:
That he is a citizen of the United States and over
the age of twenty-one years; that his postoffice ad-
dress is Visalia, California; that he is the duly ap-
pointed agent and attorney-in-fact of the Devil's Den
Consolidated Oil Company, a corporation; that the
principal place of business and postoffice address of
the Devil's Den Consolidated Oil Company is Visalia,
California; that by virtue of a compliance with the
provisions of the laws of the United States and the
rules and regulations thereunder prescribed by the
Department of the Interior of the United States gov-
erning the acquisition of title to the mineral lands on
the public domain, said applicant has become and
now is the owner and now is in the actual quiet and
undisturbed possession of that certain placer mining
claim situated in the County of Kern, State of Cali-

fornia, [314] (and not being within the limits of any mining district organized as such, but being within the vicinity of locality known as The Lost Hills Mining District), and more particularly described as follows, to wit: Consolidated Placer Mining Claim embracing the Northeast quarter of Section Thirty (30) in Township Twenty-six (26) South, Range twenty-one (21) East, Mount Diablo Base and Meridian, containing one hundred and sixty (160) acres according to the system of public land surveys of the United States.

And affiant for and on behalf of said Devil's Den Consolidated Oil Company hereby applies for a patent to said Consolidated Placer Mining Claim and the lands therein embraced as just above described.

That the area and extent of said mining claim for which patent is hereby applied and which is above described, is fully set forth and described in the official field notes and surveys and plats thereof now on file in the abovenamed Land Office and in the General Land Office at Washington, D. C., to which field notes and plats reference is hereby made.

That the facts relative to the ownership and right to possession to said mining claim and land are substantially as follows, to wit: Charles Togni, D. Switzer, E. C. Farnsworth, A. R. Orr, M. T. Mills, C. J. Giddings, L. C. Hyde and W. B. Wallace, having associated themselves together for that purpose, did on February 13, 1907, enter upon said land above described, and having then and theretofore discovered on said land placer mineral, to wit: gypsum and other placer minerals, did then and there claim

and locate said land as a consolidated placer mining claim, and did then and there post on said land a proper notice of location, and did mark the boundaries of said claim so they could readily be traced on the ground, and did thereafter and on February 23, 1907, [315] cause a true copy of the notice so posted on said land as aforesaid, to be recorded in the office of the County Recorder of Kern County, that being the county in which said land is located, in Book 40 of Mining Records, page 286; that said notice of location posted on the ground as aforesaid, and a copy of which was recorded as aforesaid, did contain the names of the locators, the date of said location, and a description of the lands located. A certified copy of said notice of location accompanies this application, is attached hereto, marked Exhibit "A," and is hereby referred to for all the particulars therein contained. That the name of said D. Switzer erroneously appeared in said notice of location as Paul Sweitzer, but that the name intended to be inserted therein was D. Switzer, as he was the party who actually associated himself with his colocators for the purpose of making said location, there being no party in this vicinity at that time by the name of Paul Sweitzer, wherefore, affiant avers that the name of said locator should be and appear as D. Switzer.

That thereafter by deed dated May 30, 1907, Devil's Den Consolidated Oil Company, the applicant herein, acquired from each and all of said locators all of their right, title and interest in and to said Consolidated Placer Mining Claim and in and to the land covered thereby.

That the Devil's Den Consolidated Oil Company is a corporation duly organized under the laws of the State of California, as will more fully appear by reference to its Articles of Incorporation, a certified copy of which is attached hereto, marked Exhibit "B" and made a part hereof.

That the applicant for patent herein, the Devil's Den Consolidated Oil Company, and its predecessors in title, the locators above-named, have, ever since the location of said placer [316] mining claim, to wit: February 13, 1907, been in the actual *bona fide* possession of said land, working and holding and claiming the same as a placer mining claim, and developing the placer minerals therein contained under the mining laws of the United States.

That there are no miners' rules and regulations now in force or in effect in the district or vicinity in which said mining claim is located.

That said land is situated on the western edge of the San Joaquin Valley in the district known as the Lost Hills Mining District, and is of a rolling uneven character, entirely devoid of timber. That there is no natural growth of vegetation thereon except a scattering growth of sage brush, and during the rainy seasons, a growth of natural grasses which dry up and blow away soon after the rains cease in the spring, not later than May first of each year. That there is no stream or body of water on or adjoining said land. That said land is not fit for agricultural purposes other than for grazing, because there is no water available to irrigate the same, and the rainfall thereon is not sufficient to produce crops of any

value. That the highest agricultural value of said land is for grazing purposes, for which it has an annual rental value of not to exceed ten cents per acre.

That at and prior to the date of said location, to wit, February 13, 1907, the above-named locators discovered placer mineral on said land, to wit, gypsum. That applicant has caused labor to be performed and improvements to be made on said land for the purpose of developing the gypsum deposits thereon and that the value of said labor and improvements for that purpose, exceeds the sum of Five Hundred (\$500) Dollars, and consists of digging trenches, cuts, pits and other excavations for the purpose of developing the gypsum deposits thereon, and opening up the same and exploring for [317] the same and said work has developed and discovered large and valuable deposits of gypsum on said land, and has shown that there are at least one hundred thousand (100,000) tons of gypsum thereon of sufficient purity to be shipped and sold at a profit when suitable transportation facilities are brought into that vicinity.

That during the year 1910 this applicant caused a well to be drilled on said land for the purpose of exploring for and developing petroleum oil, and that during said year said well was sunk to a depth of about 566 feet, and at the depth therein of 539 feet a large and prolific stratum of oil-bearing sand was discovered and oil was produced therefrom; that when said well was completed it produced oil at the rate of about three hundred (300) barrels or more per day of twenty-four hours, and that ever since

said time said well has been capable, if desired, to produce at least 300 barrels of oil per day; that the value and cost of said well exceeds the sum of Three Thousand (\$3,000) Dollars.

That ever since the date of said location, applicant or its predecessors in title, have been in the actual possession of said land, and that said possession consisted of going upon said land at any and all times and remaining there at any and all times when desired without being hindered or obstructed by any person or persons and without objection from any source whatever.

That so far as affiant is advised there is no person, firm or corporation claiming or setting up or pretending to have any right, title, interest or claim in or to said placer mining claim or any part thereof, adverse or superior to that of applicant therein.

That said applicant and its predecessors in title have fully and fairly complied with all of the requirements of law as to said placer mining claim.
[318]

In consideration of said facts and in conformity with the provisions of Chapter Six, Title Thirty-two of the Revised Statutes of the United States, application is hereby made by said Devil's Den Consolidated Oil Company for a patent from the Government of the United States for said Consolidated Placer Mining Claim, embracing the land above described.

I. T. BELL,
Agent and Attorney-in-fact of the Devil's Den Consolidated Oil Company.

Subscribed and sworn to before me this 2nd day of August, 1911, and I hereby certify that I consider the above-named affiant a credible and reliable man and that the foregoing affidavit was read by him before his signature was affixed thereto and the oath made by him.

(Signed) GEO. W. STEWART,
Register. [319]

EXHIBIT "A."

NOTICE OF LOCATION—PLACER CLAIM.

Notice is hereby given that the undersigned citizen of the United States, in compliance with the requirements of the Revised Statutes of the United States, have this day located the following-described placer mining ground, viz.:

The NE. $\frac{1}{4}$ of Sec. 30, Township 26 S. Range 21 E., situate in the Lost Hills Mining District, County of Kern, State of Calif.

This claim shall be known as the Consolidated Placer Mining Claim.

Located 13th day of February, 1907.

CHAS. TOGNI.
PAUL SWEITZER,
E. C. FARNSWORTH,
A. R. ORR.
M. T. MILLS.
C. J. GIDDINGS.
L. C. HYDE.
W. B. WALLACE.

I hereby certify the above and foregoing to be a true and correct copy of the original filed for record

at the request of J. N. Hoyt, Feb. 23, A. D. 1907, at
10 minutes past 9 o'clock A. M.

CHAS. A. LEE,
Recorder.

State of California,
County of Kern,—ss.

I, Chas. A. Lee, County Recorder of said County,
do hereby certify that the annexed is a whole, true
and correct copy of an original, as will appear by
reference to book 40 of Mining Records, page 286,
now in my office, and that said copy has been com-
pared with the original and is a correct transcript
therefrom.

WITNESS my hand and seal this 20 day of June,
1911.

CHAS. A. LEE,
Recorder in and for the County of Kern, California.

By _____,
Deputy. [320]

[County Recorder's Seal]

EXHIBIT "B."
ARTICLES OF INCORPORATION
of the
DEVIL'S DEN CONSOLIDATED OIL
COMPANY.

KNOW ALL MEN BY THESE PRESENTS:
That we, the undersigned, a majority of whom are
citizens and residents of the State of California, have
this day voluntarily associated ourselves together
for the purpose of forming a corporation under the
laws of the State of California.

AND WE HEREBY CERTIFY:

First: That the name of said corporation shall be the Devil's Den Consolidated Oil Company.

Second: That the purposes for which it is formed are to locate, acquire, hold and work, buy, sell, lease, mortgage and deal in mines, mining claims, mineral lands and other real property; to bore for and develop, produce, buy, sell, and deal in gas and gas wells, oil and oil wells, petroleum, minerals and the products thereof; and to buy, sell, lease, erect, construct, maintain, operate, hypothecate, mortgage and deal in all kinds of buildings, structures, works, machinery, tools, appliances and outfits required therefor; to develop, buy, sell, lease, mortgage and deal in water and water rights; to buy, sell, lease, mortgage and deal in rights of way, pipe-lines, easements and franchises; to conduct gas, oil and water through pipe-lines and otherwise; to acquire, buy, sell and deal in shares of stock and bonds and interests of other corporations and corporate properties; to borrow and loan money; to acquire, buy, sell, lease, mortgage, bond, hypothecate, exchange, issue bonds on and deal in real and personal property of every description; and to deal in and with all kinds of property necessary in the transaction [321] of the business of this corporation, as well as in the business of general merchandizing, and to do all things necessary therefor, and to transact such other and further business as to the directors may from time to time determine.

Third: That the place where the principal business of said corporation is to be transacted is

Visalia, Tulare County, California.

Fourth: That the term for which said corporation is to exist is fifty (50) years from and after the date of its incorporation.

Fifth: That the number of directors or trustees of said corporation shall be seven and that the names and residences of the directors or trustees who are appointed for the first year and to serve until the election and qualification of such officers, are as follows, to wit:

Names	Whose Residence is at
W. B. Wallace	Visalia, Tulare Co., California.
I. T. Bell	Visalia, Tulare Co., California.
A. R. Orr	Visalia, Tulare Co., California.
G. W. Zartman	Tulare, Tulare Co., California.
B. L. Barney	Hanford, Kings Co., California.
J. W. Tompkins	Oakland, Alameda Co., California.
F. M. Farwell	Oakland, Alameda Co., California.

Sixth: That the amount of the capital stock of said corporation is \$103,000, and the number of shares into which it is divided is 103,000 of the par value of One Dollar (\$1.00) each.

Seventh: That the amount of said capital stock which has been actually subscribed is Seven Dollars (\$7) and the following are the names of the persons by whom the same has been subscribed: [322]

Names of Subscriber.	Number of Shares.	Amount.
W. B. Wallace	1 share	\$1.00
I. T. Bell	1 “	1.00
A. R. Orr	1 “	1.00
G. W. Zartman	1 “	1.00

B. L. Barney	1	“	1.00
J. W. Tompkins	1	“	1.00
F. M. Farwell	1	“	1.00

IN WITNESS WHEREOF we have hereunto set our hands and seals this 25th day of January, 1900.

W. B. WALLACE. (Seal)

I. T. BELL. (Seal)

A. R. ORR. (Seal)

G. W. ZARTMAN. (Seal)

J. W. TOMPKINS. (Seal)

F. M. FARWELL. (Seal)

B. L. BARNEY. (Seal)

State of California,
County of Tulare,—ss.

On this 25th day of January in the year one thousand nine hundred, before me, Josephine Dineley, a Notary Public in and for the said County of Tulare, residing therein, duly commissioned and sworn, personally appeared I. T. Bell and G. W. Zartman, known to me to be the persons whose names are subscribed to and who executed the within instrument and acknowledged to me that they executed the same.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year last above written.

[Seal]

JOSEPHINE DINELEY,

Notary Public in and for the County of Tulare, State of California. [323]

State of California,
County of Tulare,—ss.

On this 26th day of January, 1900, before me, Josephine Dineley, a Notary Public in and for said Tulare County, residing therein, duly commissioned and sworn, personally appear A. R. ORR, known to me to be the person described in, whose name is subscribed to, and who executed the within instrument and he acknowledged that he executed the same.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal at my office in said County of Tulare, the day and year in this certificate first above written.

[Seal] JOSEPHINE DINELEY,
Notary Public in and for Tulare County, State of
California.

State of California,
County of Alameda,—ss.

On this 29th day of January, one thousand nine hundred, before me, H. R. Havens, a Notary Public in and for said County of Alameda, residing therein, duly commissioned and sworn, personally appeared F. M. Farwell and J. W. Tompkins, known to me to be the persons whose names are subscribed to and who executed the within instrument and acknowledged to me that they executed the same.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my seal the day and year last above written.

[Seal] H. R. HAVENS,
Notary Public in and for said County of Alameda,
State of California.

State of California,
County of Kings,—ss.

On this 30th day of January, in the year one thousand and nine hundred, before me, Andrew F. Park, a Notary Public in and for said County of Kings, State of California, residing therein, duly commissioned and sworn, personally appeared B. L. Barney, known to me to be the person described in, whose names is subscribed to and who executed the within instrument, and he acknowledged to me that he executed the same.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal at my office in said County of Kings, the day and year in this certificate first above written.

[Seal]

ANDREW G. PARK,

Notary Public in and for said County of Kings, State of California. [324]

State of California,
County of Tulare,—ss.

On this 31st day of January, 1900, before me, Josephine Dineley, a notary public in and for said Tulare County, residing therein, duly commissioned and sworn, personally appeared W. B. Wallace, known to me to be the person described in, whose name is subscribed to and who executed the within instrument, and he acknowledged that he executed the same.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal at my office in

said County of Tulare, the day and year in this certificate first above written.

[Seal] JOSEPHINE DINELEY,
Notary Public in and for Tulare County, California.

I hereby certify the foregoing to be a full, true and correct copy of the original Articles of Incorporation on file in my office in the above-entitled matter.

IN WITNESS WHEREOF I have hereunto set
my hand and affixed the seal of the above-entitled
court this 31st day of Jany., 1900.

[Seal] JOHN CUTLER, Jr.,
Clerk.

By H. B. McClure,
Deputy.

(I. R. stamp 10¢ cancelled and cut)

No. 1166.

STATE OF CALIFORNIA.

Department of State.

I, C. F. Curry, Secretary of State of the State of California, do hereby certify that I have carefully compared the annexed copy of the Articles of Incorporation of Devil's Den Consolidated Oil Company with the certified copy of the original now on file in my office and that the same is a correct transcript therefrom and of the whole thereof. Also, that this authentication is in due form and by the proper officer.

WITNESS my hand and the Great Seal of State at office in Sacramento, California, the 2nd day of Feby., A. D. 1900.

[Seal]

C. F. CURRY,
Secretary of State.

By J. Hoesch,
Deputy.

(I. R. stamp 10¢ cancelled.)

[Endorsed]: Filed January 31st, 1900. John Cutler, Jr., Clerk. By H. B. McClure, Deputy.

[Endorsed]: Filed in the office of the Secretary of State the 2d day of Feb. A. D. 1900. C. F. Curry, Secretary of State. J. Hoesch, Deputy.

Record Book —, page —. [325]

Filed in the office of the County Clerk of the County of Kern, State of California, this 21st day of May, 1900. I. L. Miller, County Clerk.

State of California,
County of Kern,—ss.

I, I. L. Miller, County Clerk of the County of Kern, State of California, do hereby certify the within to be a full, true and correct copy of Articles of Incorporation of Devil's Den Consolidated Oil Company, as remains on file in this office.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal this 31st day of July, A. D. 1911.

[Seal]

I. L. MILLER,
Clerk.

By W. T. Woods,
Deputy Clerk. [326]

Sept. 27, 1911.

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

Serial No. 03280.

In the Matter of the Application of DEVIL'S DEN
CONSOLIDATED OIL COMPANY, a Cor-
poration, for a Patent to CONSOLIDATED
PLACER MINING CLAIM, Embracing
NE. $\frac{1}{4}$ Sec. 30, T. 26 S. R. 21 E. M. D. M.

AFFIDAVIT OF MINERAL CHARACTER AND
IMPROVEMENTS.

State of California,

County of —.

John E. Henry and Russell Mills, being first duly sworn, each for himself, and not one for the other, deposes and says: That he is a citizen of the United States and over the age of twenty-one years; that for at least one year last past he has been familiar with the business of developing and producing petroleum, oil and gypsum in the State of California, and knows the cost, or reasonable value, of the improvements made upon the land hereinafter described as hereinafter set forth; that he is familiar with the lands and vicinity in said County of Kern where the business of drilling for, producing and shipping oil and mining gypsum is carried on; that he is well acquainted with the Consolidated Placer Mining Claim comprising the Northeast quarter of Section Thirty (30), Township Twenty-six (26) South, Range Twenty-one (21) east of the Mount

Diablo Base and Meridian, containing one hundred and sixty (160) acres according to the system of Public Land Surveys of the United States; that affiant is well acquainted with the labor done and improvements made and the minerals discovered and produced upon the said above-described placer mining claim. [327]

That said land is situated on the western edge of the San Joaquin Valley in the district known as The Lost Hills Mining District, and is of a rolling uneven character, entirely devoid of timber. That there is no natural growth of vegetation thereon except a scattering growth of sage brush, and during the rainy seasons, a growth of natural grasses which dry up and blow away soon after the rains cease in the spring, not later than May first of each year. That there is no stream or body of water on or adjoining said land. That said land is not fit for agricultural purposes other than for grazing, because there is no water available to irrigate the same, and the rainfall thereon is not sufficient to produce crops of any value. That the highest agricultural value of said land is for grazing purposes, for which it has an annual rental value of not to exceed ten cents per acre.

That at and prior to the date of said location, to wit, February 13, 1907, the above-named locators discovered placer mineral on said land, to wit, gypsum. That applicant has caused labor to be performed and improvements to be made on said land for the purpose of developing the gypsum deposits thereon and that the value of said labor and improve-

ments for that purpose, exceeds the sum of Five Hundred (\$500) Dollars, and consists of digging trenches, cuts, pits and other excavations for the purpose of developing the gypsum deposits thereon, and opening up the same and exploring for the same and said work has developed and discovered large and valuable deposits of gypsum on said land, and has shown that there are at least one hundred thousand (100,000) tons of gypsum thereon of sufficient purity to be shipped and sold at a profit when suitable transportation facilities are brought into that vicinity.

That during the year 1910 this applicant caused a well to be drilled on said land for the purpose of exploring for and developing [328] petroleum oil, and that during said year said well was sunk to a depth of about 566 feet, and at the depth therein of 539 feet a large and prolific stratum of oil-bearing sand was discovered and oil was produced therefrom; that when said well was completed it produced oil at the rate of about three hundred (300) barrels or more per day of twenty-four hours, and that ever since said time said well has been capable, if desired, to produce at least 300 barrels of oil per day; that the value and cost of said well exceeds the sum of Three Thousand (\$3,000) Dollars.

That ever since the date of said location, applicant or its predecessors in title, have been in the actual possession of said land, and that said possession consisted of going upon said land at any and all times and remaining there at any and all times when desired without being hindered or obstructed by any

person or persons and without objection from any source whatever.

That so far as affiant is advised there is no person, firm or corporation claiming or setting up or pretending to have any right, title, interest or claim in or to said placer mining claim or any part thereof, adverse or superior to that of applicant therein.

That affiant is not interested in the above-described placer mining claim or any part or portion thereof, or in the minerals contained therein.

JOHN E. HENRY.

RUSSELL MILLS.

Subscribed and sworn to before me this 27th day of September, 1911, and I hereby certify that I consider the above-named affiants credible and reliable men; that the foregoing affidavit was read by them before their signatures were affixed thereto and the oath made by them.

GEO. W. STEWART,

Register. [329]

Sep. 27, 1911.

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

Serial No. 03280.

In the Matter of the Application of DEVIL'S DEN
CONSOLIDATED OIL COMPANY, a Corporation for a Patent to CONSOLIDATED
PLACER MINING CLAIM, Embracing
NE. $\frac{1}{4}$ Sec. 30 T. 26 S. R., 21 E. M. D. M.
PROOF OF ABSENCE OF VEINS.

State of California,
County of —.

John E. Henry and Russell Mills, being first duly sworn, each for himself and not one for the other, deposes and says: That he is a citizen of the United States and over the age of twenty-one years; that he is a resident of the County of Tulare, State of California; that he is well acquainted with the territory on the West Side of the San Joaquin Valley in the vicinity of the mining claim hereinafter described; that he is well acquainted with each of the legal subdivisions, having frequently passed over the same, of the Consolidated Placer Mining Claim comprising the Northeast quarter of Section Thirty (30) Township Twenty-six (26) South, Range Twenty-one (21) East of the Mount Diablo Base and Meridian, containing one hundred and sixty (160) acres according to the system of Public Land Surveys of the United States; that his knowledge of said land is such as to enable him to testify understandingly with regard thereto; that there is not to his knowledge within the limits of said placer mining claim any vein or lode of quartz or other rock in place bearing gold, silver, cinnebar, lead, tin, or copper, or any other valuable deposits at any place upon said claim; [330] that there is no salt spring or other deposit of salt thereon sufficient to make it chiefly valuable therefor, except petroleum, asphaltum, natural gas, gypsum or other placer mineral or minerals recognized by law as being placers are excepted from the operation of this affidavit.

That affiant has no interest in said placer mining claim or in the mineral or mineral products therein contained or in the application for patent therefor.

JOHN E. HENRY.

RUSSELL MILLS.

Subscribed and sworn to before me this 27th day of September, 1911, and I hereby certify that I consider the above-named affiants credible and reliable men; that the foregoing affidavit was read by them before their signatures were affixed thereto and the oath made by them.

GEO. W. STEWART,

Register. [331]

Oct. 31, 1911.

AFFIDAVIT OF PUBLICATION—03280.

State of California,

County of Kern,—ss.

C. H. Seiders, being duly sworn, upon his oath deposes and says: My name is C. H. Seiders; I am a resident of the County of Kern, State of California, and am over the age of 21 years; I am now, and ever since the 17th day of March, 1908, have been manager of "Delano Record," a newspaper printed and published in Delano in said Kern County, and as such had charge of all the advertisements published in said newspaper since said 17th day of March, 1908, and I further state that the legal notice of which the copy annexed on the margin hereof is a true printed copy, which printed copy is hereby referred to and made a part hereof, was published in said newspaper once each week for 10 successive weeks,

(Here is inserted true and correct copy of Notice of Application for Patent, dated the 2nd day of August, 1911).

the said notice being in each number of the regular and entire issue, and not in any supplement thereof, and during each and all the times specified, as follows, to wit:

In the issue of Aug. 3, 1911; Aug. 10, 1911.

In the issue of Aug. 17, 1911; Aug. 24, 1911.

In the issue of Aug. 31, 1911.

In the issue of Sept. 7, 1911; Sept. 14, 1911.

In the issue of Sept. 21, 1911; Sept. 28, 1911.

In the issue of Oct. 5, 1911.

C. H. SEIDERS.

Subscribed and sworn to before me this 9th day of October, 1911.

[Seal]

W. B. TIMMONS,

Notary Public in and for the County of Kern, State of California. [332]

Oct. 31, 1911.

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

Serial No. 03280.

In the Matter of the Application of DEVIL'S DEN
CONSOLIDATED OIL COMPANY, a Corporation, for a Patent to CONSOLIDATED
PLACER MINING CLAIM, Embracing
NE. $\frac{1}{4}$ Sec. 30 T. 26 S. R., 21 E. M. D. M.

PROOF OF CONTINUOUS POSTING ON LAND.

State of California,

County of Tulare,—ss.

I. T. BELL, being first duly sworn, deposes and says: That he is the agent and attorney in fact of the Devil's Den Consolidated Oil Company for the pur-

pose of applying for and obtaining a patent to the Consolidated Placer Mining Claim; that on the 30th day of July, 1911, he posted notice of the application of said applicant for a patent to said Consolidated Placer Mining Claim, as shown by affiant's affidavit and the affidavit of two disinterested witnesses now on file in the above named Land Office.

That said notice was posted in a conspicuous place on the Northeast quarter of said Section Thirty (30) near the center thereof;

That ever since said 30th day of July, 1911, affiant has caused said notice to remain so posted on said claim, and said notice has been continuously and conspicuously posted on said claim from and including the 30th day of July, 1911, to and including the 5th day of October, 1911, and during the entire period of publication of said notice.

I. T. BELL. [333]

Subscribed and sworn to before me this 31st day of October, 1911,

GEO. W. STEWART,
Notary Public in and for the County of Tulare, State
of California. [334]

CERTIFICATE THAT NOTICE REMAINED
POSTED SIXTY DAYS.

Nov. 10, 1911.

UNITED STATES LAND OFFICE,
AT VISALIA, CALIFORNIA.

November 10, 1911.

I hereby certify that a notice, of which the attached notice is a copy, of application No. 03280, by

Devil's Den Consolidated Oil Company, for a patent for the Consolidated Placer Mining Claim, remained conspicuously posted in this office for the full period of sixty days; that said notice was posted on the 2d day of August, 1911, and remained posted until the 10th day of November, A. D. 1911; that during that time the plat of the official survey No. —, of said claim remained in this office, and that no adverse claim has been filed.

GEO. W. STEWART,
Register. [335]

Withdrawn.

RECEIVED

Aug. 9, 1911.

Second Field Division.

November 10, 1911.

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

03280

Serial No. —.

In the Matter of the Application of DEVIL'S DEN
CONSOLIDATED OIL COMPANY, a Cor-
poration, for a Patent to CONSOLIDATED
PLACER MINING CLAIM, Embracing
NE. $\frac{1}{4}$ Sec. 30 T. 26 S. R., 21 E. M. D. M.

NOTICE OF APPLICATION FOR PATENT.

Notice is hereby given that in pursuance of Chapter Six of Title Thirty-two of the Revised Statutes of the United States, the Devil's Den Consolidated Oil Company, a corporation, whose prin-

cial place of business is at Visalia, Tulare County, California, by I. T. Bell, its agent and attorney in fact, whose postoffice address is Visalia, Tulare County, California, claiming to own the following described placer mining claim, to wit: the Consolidated Placer Mining Claim comprising the Northeast quarter of Section Thirty (30) in Township Twenty-six (26) South, Range Twenty-one (21) East of the Mount Diablo Base and Meridian, containing one hundred and sixty (160) acres according to the system of Public Land Surveys of the United States, is about to make application to the United States for a patent to said placer mining claim.

The notice of location of said Consolidated Placer Mining Claim was duly recorded in the office of the County Recorder of the County of Kern, State of California, on February 23d, 1907, in Book 40 of Mining Records, page 286.

Any and all persons claiming adversely the mining grounds and premises above described and applied for are hereby notified that unless their adverse claims are duly filed according to law, and the regulation thereunder, within the time prescribed by law, with the Register of the United States Land Office at Visalia, California, they will be barred by virtue of the provisions of said Statute.

Dated this 2d day of August, 1911.

GEO. W. STEWART,

Register.

Date of first publication August —, 1911. [336]

Oct. 31, 1911.

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

Serial No. 03280.

In the Matter of the Application of DEVIL'S DEN
CONSOLIDATED OIL COMPANY, a Cor-
poration, for a Patent to CONSOLIDATED
PLACER MINING CLAIM, Embracing
NE. $\frac{1}{4}$ Sec. 30 T. 26 S. R., 21 E. M. D. M.

STATEMENT OF FEES AND CHARGES.

State of California,

County of Tulare,—ss.

I. T. Bell, being first duly sworn, deposes and says:
that he is the agent and attorney in fact for the
Devil's Den Consolidated Oil Company, a corpora-
tion, in the above-entitled matter for the purpose of
applying for and obtaining a patent from the Govern-
ment of the United States to the following described
placer mining claim;

The Consolidated Placer Mining Claim, compris-
ing the Northeast quarter of Section Thirty (30)
Township Twenty-six (26) South, Range Twenty-
one East, Mount Diablo Base and Meridian, contain-
ing one hundred and sixty (160) acres according to
the system of Public Land Surveys of the United
States.

That he has conducted said application on behalf
of said Devil's Den Consolidated Oil Company, and
is familiar with the sums of money paid and ex-
pended in that behalf; that in the prosecution of said

application he has paid out in the manner and for the purposes below indicated, the following sums of money and no more;

To the Register on filing application for patent.....	\$ 10.00
For Publication of Notice of Application....	12.00
For Purchase Price of Land.....	400.00
	<hr/>
	\$422.00

I. T. BELL. [337]

Subscribed and sworn to before me this 31st day of October, 1911.

GEO. W. STEWART,
Notary Public in and for the County of Tulare, State of California. [338]

Oct. 31, 1911.

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

Serial No. 03280.

In the Matter of the Application of DEVIL'S DEN
CONSOLIDATED OIL COMPANY, a Corporation, for a Patent to CONSOLIDATED
PLACER MINING CLAIM Embracing NE.
1/4 Sec. 30 T. 26 S. R. 21 E., M. D. M.

APPLICATION TO PURCHASE—679311.

To the Register and Receiver of the United States
Land Office, Visalia, California.

Sirs: The undersigned claimant, under the provisions of Chapter Six, Title Thirty-Two of the United States Revised Statutes, hereby applies to purchase

that certain placer mining claim situated in the County of Kern, and more particularly described as follows, to wit:

The Consolidated Placer Mining Claim, embracing the Northeast quarter of Section Thirty (30), Township Twenty-six (26) South, Range Twenty-one (21) East, Mount Diablo Base and Meridian, containing one hundred and sixty (160) acres according to the system of Public Land Surveys of the United States.

And applicant hereby agrees to pay therefore the sum of Four Hundred (\$400.00) Dollars, that being the legal price therefor.

Dated, Visalia, California, October 31st, 1911.

DEVIL'S DEN CONSOLIDATED OIL
COMPANY.

By I. T. BELL,
Its Agent and Attorney-in-Fact. [339]

Aug. 2, 1911.

IN THE UNITED STATES LAND OFFICE,
VISALIA, CALIFORNIA.

(Serial No. 03280.

In the Matter of the Application of DEVIL'S DEN
CONSOLIDATED OIL COMPANY, a Cor-
poration, for a Patent to CONSOLIDATED
PLACER MINING CLAIM, Embracing NE.
¼ Sec. 30 T. 26 S. R. 21 E., M. D. M.

AGREEMENT WITH PUBLISHER.

The undersigned, publisher and proprietor of the
"Delano Record," a weekly newspaper, published at
Delano, Kern County, California, does hereby agree
to publish the notice required by Chapter Six of

Title Thirty-two of the Revised Statutes of the United States, being the notice of intention of the Devil's Den Consolidated Oil Company, a corporation, the applicant for patent above-named, to apply for a patent to the Consolidated Placer Mining Claim situated in the County of Kern, State of California, and to hold the said Devil's Den Consolidated Oil Company for the same.

And it is hereby expressly stipulated and agreed that no claim shall be made against the Government of the United States, or its officers or agents for such publication.

Delano, California, July 29th, 1911.

CHAS. K. SEEVER,

Publisher. [340]

[Endorsed]: No. A-37 Eq. United States vs. Devil's Den Consolidated Oil Co. et al., Defendants. Exhibit "A." Copy of Proceedings before Visalia Land Office. No. 03280. Filed Aug. 21, 1916. Wm. M. Van Dyke, Clerk. T. F. Green, Deputy. [341]

Thereupon Mr. Dunne presented his argument for the defendants to the Court on the motion to dismiss the cases on the ground that the Court had no jurisdiction to try said cases. Mr. Dunne occupied all of the morning in this argument, and at 12 o'clock the court took a recess until 2 o'clock P. M. of said 21st day of August 1916, whereupon Mr. Dunne resumed his argument, and finished his opening statement during the afternoon.

At the close of the opening argument, Mr. Dunne stated to the Court as follows:

“Now, I hope that I have made plain my mind to your Honor upon this question of jurisdiction, and I think perhaps you will appreciate the somewhat insistent position I took this morning that this fundamental question should be considered and determined before we went into any litigation upon questions of injunction [342] or receiver or any other kind of question falling within the play of the ordinary exercise of the jurisdiction of the court.”

Whereupon Mr. Frank Hall and Mr. E. J. Justice, solicitors for the complainant, replied, which arguments continued until the close of the afternoon session, at which time the Court adjourned until August 22, 1916, at 10 o'clock A. M.

At 10 o'clock A. M., August 22, 1916, Mr. Justice resumed his argument, and thereafter Mr. Dunne replied to the argument of counsel for the complainant.

At the close of Mr. Dunne's argument the following proceedings took place:

“The COURT.—In case Number 57, which I assume has been considered along with 52 and 37, I therefore assume that it now develops that at the time this suit was commenced there was no application pending in this Department for a patent.

“Mr. PIER.—We had prepared an application for patent long prior to the commencement of this action. It developed that there was a homestead entry upon that property and, therefore, our application was refused. That later was removed, and immediately upon its removal we filed our application for patent. Then we took all the necessary steps that we could have taken up to date, namely, filed the initial papers,

gave the notice, published notice, and we posted the notice upon the land. That is in course of being prosecuted at this time, and the time within which to pay the money has not yet arrived. That is, the ten-week period of publication has not expired and will not expire till December 19.

“The COURT.—You are not claiming that you can oust the jurisdiction of the court by such a proceeding as that?

“Mr. PIER.—It may be this: That the equitable title has [343] not vested in the applicant at this time by reason of the fact we have not paid the money. But having *bona fide* made our application with the Land Department for patent, we are entitled to proceed there, and the Land Office must adjudicate our rights as to the property. There may be some purposes for which this court may take jurisdiction in A-57. Our position in the other two is that there are no purposes for which the Court may take jurisdiction. The title, and our rights to this property, and our right to patent, must be determined in the Land Department.

“The COURT.—I do not understand that after a court of equity obtains jurisdiction in a suit to oust an occupant of public lands that he can defeat the jurisdiction by making an application merely to the Land Department for a patent.

“Mr. PIER.—That may be true.

“Mr. HALL.—Just to give the exact date, on June 15th, 1916, this suit A-57 was instituted and subpoena issued against the defendant. The initial proceedings in the Land Office looking to acquirement of pat-

ent were commenced on July 10, 1916, twenty-five days after the institution of this suit.

“Mr. DUNNE.—I would like to say that in arguing the case to you I went upon the proceedings in 52 and 37, and I never have seen the proceedings in 57.

“The COURT.—So far as 57 is concerned, if there is any objection to the jurisdiction, that will be overruled. So far as 52 and 37, I feel that it is an important question, and the consequences of the decision would be such that I ought not to decide it without time for examination, because if I should conclude that your position is well taken and dismiss the suit, the Government is not in position to enforce its rights against this property. And if I should overrule the plea and proceed with the consideration [344] of the question and the appointment of a receiver, and conclude that a receiver should be appointed, and put this property into the hands of a receiver, and it should ultimately turn out that I was in error, it would be a very great damage to the defendant. So I feel that in those cases I should have to take some time to consider them. It is impossible for me to say now when I can do it. I will do it as soon as I can.

“Mr. JUSTICE.—Pending that decision, would your Honor prefer to go on and hear the evidence upon the application for a receiver and decide law questions thereafter, or would you prefer to decide that question first?

“The COURT.—It would be more orderly to decide this question first. Then if I concluded the court had jurisdiction, to take up the other question. The only difficulty that I see in that course of proce-

dure, in so far as I am personally concerned, is that I shall not be able to take up any matters in California before the first of October. There may be other Judges, however, in this jurisdiction.

“Mr. JUSTICE.—Unfortunately, Judge Trippet considers himself disqualified to hear the case. Judge Bledsoe has refused to hear the case because of some suggestion that he was disqualified. He has not decided that he was disqualified, but it is embarrassing to him and he prefers not to hear it. Correspondence with Judge Gilbert has rather left the Government in a position where it seems to be dependent upon your Honor presiding in these cases if they be tried at any time reasonably soon. There might be some Judge obtained from outside of the District, but that is not desirable.

“The COURT.—Since I came here I learned that Judge Cushman had been assigned to the district during the month of September.

“Mr. JUSTICE.—My understanding is that Judge Cushman will [345] be very much occupied with some regular matters. In that situation, with the facts in that situation, I should like to ask your Honor to hear the evidence and have the whole matter before you so, if you overrule the objection—

“The COURT.—How long will it take? What time will it be necessary to consume?

“Mr. DUNNE.—It will be a very lengthy proceeding.

“Mr. HALL.—We can get *our in* in a day and a half.

“Mr. DUNNE.—I think, if your Honor please,

that this question of jurisdiction should be determined before we should be called upon to try the matter.

“The COURT.—That would be true ordinarily, Mr. Dunne. Is there any pressing necessity for the appointment of a receiver, from the viewpoint of the Government?

“Mr. JUSTICE.—Yes, your Honor. We made this application for a receiver several months ago and Judge Bledsoe was objected to then by Mr. Dunne, and the matter has drifted along for one reason or another, the Government being always desirous of taking up the case. I refer now to the Devil’s Den case. And in the Lost Hills cases—

“The COURT.—Is the property being operated?

“Mr. JUSTICE.—Yes, and enormous quantities of oil being taken from them.

“The COURT.—Are the proceeds being impounded in any way?

“Mr. JUSTICE.—Not by order of the Court. By stipulation they are putting them in a bank, except for the spending of money necessary for the operation of the wells. The company I think is insolvent. That is, they would be wholly insolvent except for this property. If it does not belong to them, they are insolvent. Another thing that I desire to call your Honor’s attention to is [346] that we are now ready to proceed to offer testimony in support of our application for injunction and receiver in the case that your Honor has held that the Court had jurisdiction of, and that will in large measure cover the other cases.

“Mr. DUNNE.—We don’t care anything about that case.

“Mr. PIER.—I was going to say this: there is no—with reference to the status of this property in the Devil’s Den case, there is a stipulation between counsel for the Government and counsel for the defendant that the money is to be deposited—the proceeds of the sale of oil—is to be deposited in the Crocker National Bank: that has been made with the approval of the Court. So there is no question but that the Government is amply protected so far as the Devil’s Den case is concerned. As regards the Lost Hills, the same procedure is being followed without an order of the Court. We are perfectly willing to take an order of the Court upon it in the meantime. As regards A-57, the property is not being operated. Not one drop of oil is being taken out of it. The well has been closed down for the reason that it is not sufficiently productive to transport oil for the distance oil has to be transported from the well in A-57. Now, these properties have been examined by the Government. Government agents have gone upon them and they say that they are as well operated as any oil wells possibly can be.

“Mr. JUSTICE.—Whom do you mean?

“Mr. PIER.—Your special agent, Mr. Jensen, who says they are being operated as economically and efficiently as possible. That does not appear before the Court, but you can ask your own agents about that suggestion, for the simple reason that Mr. Jensen in informal conferences with us and with other agents has agreed to that.

“Mr. JUSTICE.—I have investigated and found that the [347] property is being greatly damaged by water; at least, that is the Government’s position—that they are being damaged by water. The stipulation that Mr. Pier refers to is not adequate to protect the Government. It was entered into on the part of the Government because nothing better could be gotten at that time, and we had to agree on what we could get the other side to agree to. But it is not adequate, and, therefore, it was provided that it was without prejudice to the Government to press its application for a receiver at any time, and was to be in force pending the decision of the Court upon the application for injunction and for a receiver.

“Mr. PIER.—And we have been operating under it for some ninety days, and at the time that thirty-day additional time was put in effect in view of the fact that we have operated three years before suit was brought, it would not be a material injury to the Government at this time.

“The COURT.—So far as 57 is concerned, I suppose if there is any order necessary at all—

“Mr. JUSTICE.—I should like, your Honor, to have a receiver appointed to take the property over, to investigate it and shut off the water.

“The COURT.—In 57?

“Mr. JUSTICE.—Yes. That is one of the serious questions.

“The COURT.—You don’t want a receiver appointed to open up and operate the property?

“Mr. JUSTICE.—Oh, no. I want the receiver appointed for the purpose of preserving the property.

Of course, if the receiver should see that it was necessary to do some unusual thing that is now not anticipated, we would lay it before the Court.

“Mr. DUNNE.—If the Court please, I am advised that we will not consent, and do not wish to be put in the attitude of [348] consenting, to a receiver in 57. But with that case I am not very familiar. Mr. McWilliams is.

“Mr. McWILLIAMS.—The point we desire to make in that case is that the complaint is insufficient to justify the Court in appointing a receiver or granting an injunction to the plaintiff. I take it that it is possibly a little premature to make the suggestion, but I simply don't want your Honor to be under any misunderstanding as to our attitude with reference to that particular case.

“The COURT.—Well, take up 57 this afternoon, and we will hear what counsel has to say about it.

“Mr. HALL.—That entails offering all the proofs in all the cases, and we will proceed with it.

“The COURT.—So far as the testimony is applicable in the three cases it will be so considered by the Court if it hereafter holds that it has jurisdiction.

“Mr. DUNNE.—Your Honor will not require us to put in testimony in 52 and 37 on this question of injunction and receiver? We could go along with A-57, and we will stipulate that the evidence may be considered and used by the Government in the event that the question should come to a hearing if your Honor should determine that you have jurisdiction.

“The COURT.—I will determine later to what extent the hearing will go.”

Thereupon the Court adjourned until 2 o'clock P. M.

At 2 o'clock P. M. the following proceedings were had:

"The COURT.—I might say before you begin that I have concluded that under the circumstances I will hear the application for receivers in all three of the cases. You are dealing now [349] with 57?

"Mr. HALL.—All three are intermingled. It applies to all.

"The COURT.—There is 57, 52 and 37?

"Mr. McWILLIAMS.—I might suggest that being under the impression that what your Honor stated before the adjournment was that evidence would be limited to A-57 and only used in the other cases in the event that your Honor subsequently decided against the point that has been raised, we have not prepared ourselves to proceed this afternoon and have not brought our papers with us, or any of our evidence that we had expected to eventually use on the hearing.

"The COURT.—I suppose that the Government can occupy the time this afternoon.

.
"Mr. HALL.—The Government offers as its Exhibit 'A' in all three cases, A-37, A-52 and A-57, the stipulation entered into or agreed to be entered into between counsel for the respective parties.

"Mr. DUNNE.—It will be understood, if your Honor please—I don't want to embarrass by interrupting Mr. Hall—that the taking of testimony is

subject to our objection that the Court is without jurisdiction.

“The COURT.—Oh, certainly.

“Mr. McWILLIAMS.—And all these exhibits will come in subject to our objection that the Court has no jurisdiction.

“The COURT.—Oh, yes. [350]

“Mr. HALL.—This stipulation has not been signed, but it has been gone over by Mr. Pier and myself and Mr. McWilliams, and it is offered as much for you as for us.

“I want this evidence to come in in all the cases, and I presume that your Honor will be prepared to pass on the receivership in this matter in 57. I wanted to go on that assumption, so I will not take the time to read this stipulation in its entirety, because it deals with the Land Office proceeding with respect to the application for patent in 37, the Devil’s Den case, and in A-52. It touches nothing whatever in regard to A-57, the Southwest quarter of 18, with the exception of the contracts which were entered into between the original Lost Hills locators and certain parties for the development of the property in question. These contracts are practically as follows: On December 19, 1908, the locators of all of this group of claims, both in 37, 52 and 57, who were practically the same people all the way through, entered into an agreement with a man named Charles W. Barrett on December 19, 1908, for the development of twenty-three claims which had been theretofor located or attempted to be located, as

the Government claims, by reason of the so-called gypsum discovery.

“Mr. DUNNE.—Are you stating something from the stipulation?

“Mr. HALL.—I am stating in substance what the contract was with Barrett. And that that contract is attached to and made a part of this stipulation.

“Mr. DUNNE.—Who were the contracting parties?

“Mr. HALL.—The other contracting parties were the locators of these twenty-three claims who composed afterwards the stockholders of the Lost Hills Mining Company and the Devil’s Den Company, who are the persons who claim these claims under the so-called [351] gypsum locations.

“The COURT.—Isn’t this one of the cases in which testimony was taken the other day?

“Mr. HALL.—Mr. Jensen’s testimony was taken in the Devil’s Den case and in 57, and I have a copy of another deposition of his that I am going to offer in 52.

“Mr. DUNNE.—And it is stipulated that his cross-examination shall apply to 52?

“Mr. HALL.—Yes.

“Mr. McWILLIAMS.—I would like to interpose another objection in this and in all the cases to this exhibit on the ground that the complaints in each of the three cases are insufficient to justify the Court in appointing a receiver or giving an injunction, and insufficient to justify the Court in receiving any evidence under the complaints in each of the cases.

“The COURT.—Overruled.

“Mr. McWILLIAMS.—Exception.

“Mr. HALL.—Plaintiff offers in evidence in A-52 the deposition of Mr. Joseph Jensen, together with the exhibits thereto attached. That is the deposition taken in 52 before the Land Office.

(The deposition of Joseph Jensen taken in the case of United States of America vs. Devil's Den Consolidated Oil Company, A-37 and in United States of America vs. Lost Hills Mining Company, A-52, and in United States of America vs. Lost Hills Mining Company, et al., A-57, offered by plaintiff, taken on the 21st day of August, 1916, before the Honorable Robert S. Bean, is as follows:) [352]

San Francisco, California, August 17, 1916,
2 o'clock P. M.

Testimony of Joseph Jensen, a Witness on Behalf of the Plaintiff, Taken, by Stipulation of Counsel, in Advance of the Hearing Set for Monday, August 21, 1916.

JOSEPH JENSEN, a witness called on behalf of the plaintiff having been first duly sworn, testified as follows:

Direct Examination.

(By Mr. HALL.)

The WITNESS.—My name is Joseph Jensen. My home is in Salt Lake City, Utah. My occupation is mining engineer and geologist. At the present time I am employed in the United States General Land Office, field service, as a mineral inspector. I entered the service of the government in August,

(Testimony of Joseph Jensen.)

1908, and have been continually of record since that time, but for three years I was on a leave of absence, so that I have had five years of service.

I am a graduate of the State School of Mines of the University of Utah, with the degree of Bachelor of Science in mining engineering. I also did post-graduate work at the Royal School of Mines at Freiburg, Germany, and have a Master's degree from Columbia University, New York City, in geology and mining.

At this time I am contemplating a change in my employment. As soon as this deposition is finished I am going to Pittsburg to arrange to take the position of assistant professor of mining in the Carnegie Institute of Technology.

I have been engaged in the practicing of my profession as a mining engineer since 1906; about ten years.

Q. In what countries have you been engaged in practicing your profession? [353]

A. Well, in the western states of the United States principally; but I have also traveled and studied in many countries in Europe—in Austria, Germany, Belgium, England, Scotland, Wales and Saxony, and in various provinces in the Prussian kingdom.

The WITNESS.—(Continuing). I have made a particular study of gypsum. My work with regard to gypsum in the United States has been principally in the State of California, but I have also worked in Utah and New Mexico, and have come in contact with deposits of this character.

(Testimony of Joseph Jensen.)

Q. How long have you been engaged in making a particular study of deposits of gypsum?

A. Well, it would be hard to segregate the time for a period, because mineral deposits are all inter-related. The methods of mining are much the same and the methods of treatment are much the same. I have been familiar with gypsum deposits, and have examined gypsum deposits as far back as 1908, but it would be hard to segregate out and specify what training applied specifically to gypsum because the subject-matter is inter-related.

The WITNESS.—(Continuing.) During the time that I have been engaged in pursuing my profession, I have given more or less attention to the subject of gypsum, particularly in this California work since I came to California in 1913. During my experience in California I have studied the oil situation and the deposition and production of oil—petroleum. I have made a study of the entire gypsum situation. Considering the geologic features, as to its mode of occurrence, its relation to other gypsum products, and also the commercial features connected with its development and utilization. That study, in connection with the commercial features, embraces the question of the cost of production and transportation and so forth. [354]

Gypsum is a rather common substance. We know it best as alabaster, a white substance from which statuary is carved. It is soft and can be scratched with the finger-nail. I refer to alabaster, not because it is of common usage, but because the layman

(Testimony of Joseph Jensen.)

is most familiar with it in this form. If gypsum is heated and one-fifth of its weight is lost by driving off the water, we get the substance called plaster of paris, which has the property of taking up water again and really forming a compound of gypsum, or a related mineralogical compound. The chemical composition of gypsum is scientifically known as Anhydride Calcium Sulphate; CaSO_4 plus $2\text{H}_2\text{O}$.

Q. How is gypsum usually deposited in the earth's surface, and from what sources does it come?

A. Gypsum is a mineral which is deposited from solutions during the period of desiccation of a lake. It is essentially mineral which is deposited under arid conditions, as, for example, lakes in the Great Basin. Thus Rush Lake, in Central Utah is a lake which alternately goes dry and then fills up again so that borings through the bottom of the lake disclose layers of mud and layers of gypsum. Gypsum being less soluble than ordinary common salt, it is deposited before common salt is deposited. It is deposited laid down in shales and ordinarily in salt formations or formations that may contain salt. Most invariably they contain gypsum, as, for example, the Strassfurt deposits in Germany. There are several layers of gypsum connected with the salt deposits. In some cases the gypsum is deposited in very pure form so that it is practically 100 per cent pure; in other cases the gypsum will be deposited with the muds and clays in a dry lake. For example, a freshet will fill the lake with mud, and as it dries up the gypsum will be crystallized in the mud, and in a diffused form, so

(Testimony of Joseph Jensen.)

that the mud merely contains a few gypsum crystals.
[355]

Q. I understand pure gypsum, in its native state, is usually composed of large crystals and is in a regular crystallized form, is it not?

A. This way: If a pure chemical compound gypsum were given a free space in which to crystallize it would form a crystal but as it occurs as rock gypsum these crystals have not had the opportunity of development, but the entire mass is compact and very much like a rock; perhaps like rock salt, although not so transparent.

Q. Is the occurrence of gypsum in the earth's crust usually associated or ever associated with the part of the earth's crust which usually bears petroleum and oils of that sort?

A. There is no relationship between the two. It is merely a coincidence that gypsum and gypsite occur on the surface of oil lands in California.

Q. Does the occurrence of gypsum or gypsite on the surface of the earth in California indicate or form a basis for any conclusion or deduction that there is a deposit of petroleum beneath that layer of gypsum?

A. None whatever, for the reason that the conditions which made the deposition and the accumulation of petroleum possible existed prior to the time the surface deposits were formed.

The WITNESS.—(Continuing). The oil sands of California were laid down in the Eocene and Miocene age. This surface gypsum that is usually found in the State of California is either Late Miocene or

(Testimony of Joseph Jensen.)

subsequent to that in age.

Q. (By Mr. DUNNE.)—I suppose he wants to know whether the gypsum is younger or older?

A. Well, gypsum is younger.

Q. (By Mr. HALL, Resuming). What is gypsite? [356]

A. The dividing line between rock gypsum and gypsite and gypsiferous earth and earth containing gypsum crystals, is somewhat difficult to draw all the way through. However, the term rock gypsum is confined to a compact gypsum which occurs in a rock-like form, and when mined breaks into rocks forming compact masses. Gypsite is always a secondary deposit, that is, a secondary accumulation. In Kansas and Texas the gypsite there has been derived from the leeching of a bed of rock gypsite, and its deposition. These beds of rock gypsite are extremely pure, and consequently the gypsites derived therefrom are also extremely pure. The deposits of California have been derived from the concentration of impure gypsiferous earth, so that, originating from an impure product, it is still impure. Essentially, however, a cubic foot of rock gypsum is heavier than a cubic foot of gypsite, and as the gypsite is more porous and flocculent, it consequently occupies a larger space for the same tonnage. The dividing line between gypsite and gypsiferous earth as these two substances occur in California must more or less be arbitrarily drawn. I have considered gypsiferous earth to mean material which is more than 50 per cent earth, and gypsite is very much the same

(Testimony of Joseph Jensen.)

but contains from 50 to 60 per cent gypsum. However, the gypsites of Kansas—with which the gypsites of California should not be confused—do run as high as 90 to 95 per cent gypsum. The occurrence of gypsite and gypsiferous earth in the field makes a more or less arbitrary distinction by the eye necessary, for in these concentrations of gypsite from gypsiferous earth or earth with gypsum crystals the whole phenomena is an extremely superficial one, the concentration merely occurring on the top of the gypsiferous earth when the gypsiferous earth happens to be outcropping on the surface of the ground—on the surface of the hill; so that if you come to a deposit of gypsite the top of [357] it will be the purest, and gradually as you go to the bottom you will come to gypsiferous earth. Any layman can recognize that the top of the layer is more cream-color, and dirt-brown, and white and richer than the gypsiferous earth beneath. As you approach the line, even within a matter of a foot or a foot and a half of where the two come together near the middle of the section, you must finally draw the line and call that above gypsite, and that below gypsiferous earth.

Q. Is gypsite used commercially?

A. Gypsite of Kansas being 90 to 95 per cent pure, has been used commercially back in the nineties, but the deposits are pretty well exhausted though there may still be some use for it. There is no objection to the use of gypsite provided it is pure enough.

THE WITNESS—(Continuing.) All gypsum products used in the market and in the trade that are

(Testimony of Joseph Jensen.)

able to meet competition and represent a common, ordinary commercial practice must be products that contain from 80 to 90 per cent gypsum. That does not mean that the deposit in the ground must be this pure, for the reason that mining will often reduce the purity of the product so that you might have to have a 90 per cent gypsite in the ground in order to get an 80 per cent commercial product.

Q. Is gypsiferous earth of such purity that it can be used economically in the trades?

A. Not at all. Being less pure than the gypsite, and only containing less than 50 per cent of gypsum, it has no value whatsoever.

Q. You say in mining gypsite frequently the purity of the rock itself as it is deposited is reduced by the mining process. Will you explain that briefly to the court? [358]

A. The deposits of gypsite are usually superficial and thin. In many cases they are underlain by earth and also overlain by earth. The upper and lower surfaces of this thin superficial layer of gypsite are not regular; it is not a smooth plane, like the floor, but is irregular and wavy in character. Any attempt to excavate with the plow and scraper would necessarily mean that as the plow runs along, the toe of it will dig into the hard crust of gypsite and will split up the gypsite, letting the earth fall beneath it. Then, in addition, where there are hard shells in the surface of the gypsite the scraper will ride on the high places and leave soil on the low places. Now, if you conceive of a layer of one foot

(Testimony of Joseph Jensen.)

thickness of gypsite, and imagine that with a plow and scraper a man is able to work as close to the layer of gypsite without contaminating the gypsite as three-quarters of an inch above, and also as close as three-quarters of an inch below, on this one-foot layer, we then have three-fourths of an inch of soil, a foot of gypsite, and three-fourths of an inch of material from below. So that in this total thickness of thirteen and a half inches, one and a half inches is soil. That would mean one-eighth of the thickness excavated would be impure material. So that, roughly, you may expect that mining such an impure bed will introduce from ten to twenty per cent of foreign material.

The WITNESS.—(Continuing). I have made an examination of deposits of gypsum, gypsite and gypsiferous earth that occur in the region in California known as the Lost Hills, and particular in Township 26 South, Range 21 East, and also to the north. My first examination was made in January, 1914. I also made examinations in October and November, 1914, in October, 1915, and in March, 1916.

Q. In making your examinations, what facts or phenomena do you take into consideration in determining whether or not land [359] that contains gypsum is subject to entry under the mineral land laws or under the agricultural land laws?

A. The tests applied regarding gypsum are the same tests that I apply regarding all other substances when the question of mineral discovery is involved. Gypsum may be considered to occur in two forms—

(Testimony of Joseph Jensen.)

as a lode deposit and as a placer deposit. Now, in general, the test between a lode and placer deposit, which I apply, is this—that the lode deposit requires, specifically, for its acceptance, the occurrence of a vein or lode, and as to the value and mineral character of it, I do not follow this deeply and further for the reason that the lode claim is essentially a claim of hope; that is, we accept it for what it may become, for what the geology of the country promises it may be in value; but in the case of a placer claim the test is essentially different. The test which I make is that the placer claim is accepted for its present value, for what it is, as I find it on the day of my examination as it has been proven and developed by the claimant. So that this element of hope and of possibility and of future prospects is entirely lacking in the case of a placer deposit, where as it is a rather important feature in the case of a lode deposit. You take a gold vein, if you have a well-defined vein no one can tell how much gold may be expected beneath it; but in a placer deposit we look for present facts rather than hopes. And an additional test, I believe, is this—that the mineral substance under examination must be such a one that products can be produced from it which will be of such character and purity and value as to meet the ordinary demands of trade. That is, with regard to gypsum deposits specifically, I expect the gypsum deposit to be such a one as will produce a gypsum product containing from 80 to 90 per cent gypsum in the manufactured article offered for sale. The other

(Testimony of Joseph Jensen.)

element to consider in this connection [360] is this—that for non-metallic substances, such as glass, limestone, building-stones, gypsums and allied substances the element of exceptional quality and special value must be present in order to satisfy the test which we apply in field work in accepting a deposit.

Q. How widely is gypsum deposited over the region of the Lost Hills in California?

A. The gypsite which occurs in the Lost Hills, and the gypsiferous earth, occurs throughout the Lost Hills.

The WITNESS.—(Continuing.) The Lost Hills are some six or eight miles long and possibly half or three-quarters of a mile wide. The formation which composes the Lost Hills consists of lenses of gypsiferous earth. Some of these outcrop on the surface, and where they have outcropped on the surface, there has been the formation of superficial gypsite deposit. That superficial gypsite deposit is produced pretty much the same way throughout the State of California and all along the coast hills and through the anticlinal ridges that parallel the Temblor and Diablo ranges through a district of 150 by 15 miles. There is a belt about that wide and about that long. And some of the formations in this belt consist of slight lenses of gypsiferous earth. Where one of these lenses of gypsiferous earth has outcropped on the surface there has been a secondary action taken place by which the rain waters have worked into the gypsiferous earth and dissolved the gypsum and carried it towards the surface, and then

(Testimony of Joseph Jensen.)

the water has evaporated and left the gypsum behind. These gypsite crystals have formed what I describe as gypsite or amorphous gypsite.

The result, then, is that the amorphous gypsite which is brought to the surface by capillary attraction is always richer than the gypsiferous earth from which it was produced; that is always [361] the case.

I have made a specific examination of the northeast quarter of section 30 in township 26 north, range 21 east. I have been on this tract of land in January, 1914, for about two days; in October, 1914, for three to five days; in October, 1915, for about a day and a half; in March, 1916, for about three or four days. I presume I have spent from eight to ten days on this quarter section. My examination was directed almost wholly to the character of the gypsite deposits occurring on that quarter section.

Q. During any of these visits have you examined the land with respect to the petroleum that may be contained within it?

A. That was even more self-evident than the occurrence of gypsum, because of the numerous oil wells.

The WITNESS—(Continuing.) I have prepared a sketch map of the northeast quarter of section 30. The map which you now hold in your hand is it.

Q. How were all of the different points indicated on this map tied in by you?

A. They were all located by a careful and accurate survey from the marked corners of the claim. With

(Testimony of Joseph Jensen.)

regard to the location of some of the oil wells, where they were only short distance from the ten-acre lot I have indicated on the map, I repeated my work as much as three or four times to confirm the location.

Q. Did you use any instrument in making your surveys? A. A transit.

Q. Did you start from any published surveyed cornerstone or monument?

A. The corners of the claim were identified to me by Mr. W. L. McLean, who was at that time superintendent of the property, and Mr. Bush, general manager of the property, also [362], identified corners of the claim for me.

Mr. HALL.—We offer this evidence as Plaintiff's Exhibit No. 1 for the purpose of illustrating the testimony of the witness.

(The document above offered in evidence is in the words and figures following, to wit:) [363]

A-37-6g

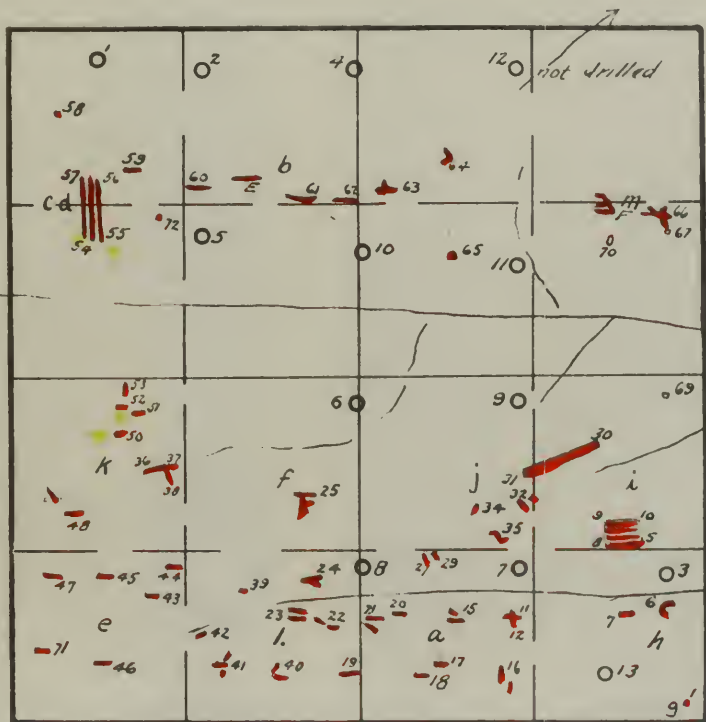
S.W. Davis and Conrad Oil Co. et al
Pls-Exhibit No. 1 Filed Aug 17th 1916.

Wm W. Van Dyke Clerk

J. J. Green Deputy.

CONSOLIDATED PLACER

NE $\frac{1}{4}$ SEC 30, T26S-R21E.



Scale 1 inch = 660 feet

- No gypsum exposed
- Natural exposure of gypsum
- Gypsum developed by assessment work or otherwise

01-13 Oil wells

17, 2, 6, 4 Points where gypsum was noted

a-m, 60 & 64 Points at or ten acre lots on which samples were taken.

(Testimony of Joseph Jensen.)

Q. (By Mr. HALL.) Referring to Plaintiff's Exhibit No. 1, I will ask you to describe to the Court the topography of the northeast quarter of Section 30, 26-21.

A. This map is the same as the original which I made in the field, and have in my note-book, to which I am referring now.

Q. (By the COURT.) That is,*just a map of the quarter section?

A. Just a map of the quarter-section, divided into ten-acre lots. Each of the little squares is a ten-acre lot. The claim rests on the top or crest of the Lost Hills. In this vicinity the Lost Hills rise possibly 100 feet or even less, above the level of the floor of the San Joaquin Valley, and merely represent a slight roll. Through the south half of the north half of the quarter section there is a gulch which runs—

Q. (By Mr. DUNNE.) Are you reading from something?

A. No; I am merely referring to the map. I was just referring to the sketch map.

The WITNESS.—(Continuing.) The sketch map that I have in the book in my hand is a copy or the original from which Plaintiff's Exhibit No. 1 has been produced. And this map was made on the ground at the time of the examination in the field and completed there.

The Lost Hills have a northwest-southeast direction, and the gulch which I have referred to as existing in the south half of the north half of this claim

(Testimony of Joseph Jensen.)

runs approximately east and west. This gulch is from 50 to 75 feet deep. The remainder of the claim is practically level, occupying the table portion of the crest of the Lost Hills. However, there are slight inequalities in elevation of this claim, and some small swales and gulches. I have indicated, for example, in the south half of the south half of the claim a [364] slight depression or gulch or swale which runs also from east to west. There are other similar small gulches or swales that drain into this main gulch, so that the claim is spotted with slight elevations and slight depressions.

This particular quarter section of land is about 25 miles from the railroad. The station which is connected up by a road, and which is used entirely, is Wasco on the Atchison, Topeka and Santa Fe Railway. There might be a shorter distance to the McKittrick branch of the Southern Pacific but there is no road connecting it, and the country would be more impassable than the route to Wasco. The route to Wasco is the only route that is used.

In my examinations of the land in question I have taken samples to ascertain the quantity and the quality of the gypsum, gypsite or gypsiferous earth that may be deposited on it. When I first went into the Lost Hills I found that the deposits had been opened up by a number of trenches, and thinking that the gypsite would be uniform in character, for the first two days I took my samples immediately from the side of the trench, but as my work developed, I found that that work done during the first two days was

(Testimony of Joseph Jensen.)

based upon an incorrect assumption for the reason that there is a slight and very superficial veneer and concentration of the gypsite on the face of the trench in a period as small as two years, as I have discovered since that time. In order, therefore, to secure a sample which was representative of the gypsite I found that it was necessary to make my cut from a foot and a half to a foot back from the face of the trench. In this way I went behind this very recent concentration and secured a representative sample of the virgin material. Where there was a nest of cuts or trenches made I would make from one to two cuts in each trench and very carefully exclude all surface soil from above and all earth from [365] below. In addition to this fact I often found that the gypsite contained balls or spheres or irregular masses of pure earth. But in taking my sample I was careful always to exclude such material from the sample.

Q. In taking your samples vertically, did it constitute portions of the gypsite as well as the gypsiferous earth?

A. I endeavored to make my sample include only what I would call gypsite because the gypsite was richer always than the gypsiferous earth and would represent the best material on the claim.

Q. In making your sample, did you ascertain whether or not you had completely penetrated or that the opening in which you had taken your sample had completely penetrated through both the gypsite and the gypsiferous earth?

(Testimony of Joseph Jensen.)

A. Most of the trenches that had been constructed had gone entirely through the gypsite layer and down into the gypsiferous earth and even penetrated the gypsiferous earth, so that in most cases this work had already been done. But, where necessary to determine that question I did extend the work to make sure that I had secured a sample of all of the material.

Q. So that you went completely vertically through all of both of the gypsite and gypsiferous earth before you took your samples?

A. That is, I made my inspection through that material; but having made the inspection, I limited my examination to the gypsite and excluded the gypsiferous earth because that would contaminate the sample.

Q. Why did you eliminate the gypsiferous earth from your sample?

A. Well, at the time I made my examination, I was making my examination to determine whether I should report favorably or [366] adversely on the claim. At that time I only had the one object in view of discovering what the true situation was and took my samples for the purpose of securing the best material on the claim.

Q. How large a sample would you take from each place?

A. In taking a sample from a ten-acre tract—most of my samples were taken in this manner, to represent ten-acre tracts—I often took a sample which would weigh as much as 150 pounds, and it would be

(Testimony of Joseph Jensen.)

taken from as many as 20 or 25 cuts that might be found in from six to twelve trenches, so that the sample, when originally taken, was a large one, a very large one. A 150-pound sample is a very large sample. Now, in the field, I had with me a canvas, and after taking the 150-pound sample I broke all of the lumps of material so that I reduced everything in the sample to very small size. Then, after thoroughly mixing it by rolling it back and forth on the canvas I would assemble it in a pile and divide it into four quarters. The two opposite quarters I would retain for my sample and the remaining two quarters I would reject. After having done this, I would again break the material down to a small size and repeat the operation of quartering, and I continued to do this until I had a small sample weighing possibly four or five ounces or a pound, and by that time the sample was thoroughly pulverized, so that there were no large lumps in it at all. It was really a fine powder.

The WITNESS.—(Continuing.) After that I placed it in a sample sack and marked it for identification, and at the same time made a note thereof in my note-book. Those samples were ultimately analyzed by different chemists in San Francisco and by a chemist in Riverside.

Q. What care, if any, did you exercise in handling those samples between the time they were prepared in the field and the time [367] they were delivered by you to the chemists in order to keep them from contamination or tampering?

(Testimony of Joseph Jensen.)

A. Well, the samples were taken in paper sacks and then the paper sack was sealed by folding over the top of it and bending back the edges. It is a special type of paper sack that we have in the land office. And then in handling these samples for transportation, I took the precaution of wrapping each one individually in several thicknesses of newspaper and tying that with a string so that each sample was in the same sack, and then in this wrapping of newspaper, so that if the sample broke it would still be retained in the newspaper. None of the samples broke, however. It was just a precaution I took to make sure that any of my work would not be lost.

The WITNESS.—(Continuing.) All together I took 15 samples from the northeast quarter of section 30. I had all those samples examined by chemists. I have a record of the analyses as returned to me by the chemists. I have their original returns here. These samples were determined by Curtis & Tompkins, and here is their original certificate (producing paper). The Smith, Emery & Company samples are contained in this certificate here, and the Coffman samples, which constituted the bulk of them, nine of them, are contained in this third certificate here. That is the original signature of Mr. Coffman. These are the originals, with the seal of Smith, Emery & Company. Those with the "D" in front of them represent the four from the Devil's Den. They constitute a large number of the samples all together.

Mr. HALL.—I will ask the Clerk to mark Plain-

(Testimony of Joseph Jensen.)

tiff's Exhibit No. 2 the copy of the report of Curtis & Tompkins, and we now offer in evidence exhibit 2 identified by the witness as being a report from Curtis & Tompkins showing the analysis of certain samples taken from the land in controversy. [368]

(Plaintiff's Exhibit No. 2 is in words and figures following:) [370]

Plaintiff's Exhibit No. 2—Report of Curtis & Tompkins, Showing Analysis of Samples Taken from Land in Controversy.

COPY.

CURTIS & TOMPKINS,

Analytical,

Industrial and Consulting

CHEMISTS.

108 Front Street, Northeast Corner Pine.

Laboratory No. 22037/8.

San Francisco, Feb. 9, 1914.

Joseph Jensen.

We have examined your sample of Gypsum (2 Samples) Received 2/6/14 Marked AS below and found the samples as received to give the following results:

ANALYSIS.

	#22037	#22038
	J—10 Gyp. 2	C—14
Sulphur Trioxide		
(SO ₃) ... (18.03%)		(34.33%)
As Gypsum (CaSO ₄ ,		
2H ₂ O)	38.75%	73.80%
Insoluble	43.36%	19.68%
Undetermined, etc.....	17.89%	6.52%
<hr/>		
Total.....	100.00%	100.00%

[Seal] (Sgd.) CURTIS & TOMPKINS,
Analytical & Industrial Chemists. [371]

Mr. HALL.—We ask that the report from H. Coffman be marked Plaintiff's Exhibit 3; and we now offer in evidence the paper which has been identified and marked Plaintiff's Exhibit 3.

(Plaintiff's Exhibit No. 3 is in words and figures following:) [372]

**Plaintiff's Exhibit No. 3—Report from H. Coffman,
Showing Analysis of Samples Taken from Land
in Controversy.**

Laboratory 220 Loring Block,
Riverside, Cal.

April 3, 1916.

Mr. Joseph Jensen, Mineral Inspector.

Department of the Interior,
General Land Office,
San Francisco, Cal.

Dear Sir: The following are the analyses of mine samples received March 26th. The Sulphuric-

anhydride (SO_3) was determined on the moisture free sample and calculated to per cent pure gypsum, $\text{CaSO}_4-2\text{H}_2\text{O}$.

	Sample.			% Gypsum.
J	12	e	142	66.13%
J	12	f	133	63.65
J	12	g	142	44.52
J	12	h	142	49.43
J	12	i	142	46.44
J	12	j	142	59.83
J	12	k	137	60.52
J	12	l	137	62.54
J	12	m	123	57.60

Respectfully submitted,

H. COFFMAN,

Consulting Chemist & Analyst. [373]

Mr. HALL.—Will the clerk mark as exhibit No. 4, certificate from Emery, Smith & Company? And we offer in evidence the paper which has been identified and marked as Plaintiff's Exhibit 4.

(Plaintiff's Exhibit No. 4 is in words and figures following:) [374]

**Plaintiff's Exhibit No. 4—Laboratory Certificate of
Smith, Emery & Co.**

Laboratory Certificate,

SMITH, EMERY & COMPANY,

Inspecting, Testing and Chemical Engineers
and Chemists,
San Francisco.

Date, December 8, 1914.

Laboratory

No. —

Sample Gypsum

Received November 28, 1914 Marked as below

Submitted by Department of Interior,

General Land Office,

512 Custom House,

San Francisco, Calif.

Mr. Joseph Jensen, Mineral Inspector.

DETERMINATIONS.

Lab. No.	Mark.	Sulphuric Anhydride (SO_3)	% of Gypsum Calculated by Jensen.
31585	*J12a 130	30.00%	64.52%
31586	*J12b 135	25.44%	54.71%
31587	J12c 144	27.09%	58.26%
31588	J12d 145	35.25%	75.81%

Respectfully submitted,

[Seal]

SMITH, EMERY & CO.,

Chemists and Chemical Engineers.

(In ink:)

*Average thickness 12 inches, covering about 5 of
the 10 acres.

*Average thickness [375]

(Testimony of Joseph Jensen.)

The COURT.—There are 17 samples all together, are there?

The WITNESS.—Yes.

Q. (By Mr. HALL.) What was the result of the analysis of those 17 samples as to the quantity of pure gypsum contained in them?

A. These samples show that the gypsum contained in the various samples varied from 38.75 per cent up to 75.81 per cent of the material, but, of course, as I have explained with regard to my method of sampling, the se samples represent a selected segregation and are indicative of the true character of the bed as it existed in the earth and are not representative of the material that would be mined from the bed.

The WITNESS.—(Continuing.) They are not characteristic or indicative of the material that would be mined from the bed because, as I have explained with regard to the mining in a thin bed of gypsite, a certain amount of earth from above and earth from below and earth inclusions, or earth balls within the gypsite will necessarily be mined with the gypsite when it is taken from the earth; but in sampling I had time and took time and exercised care so as to make my sample only of the gypsite itself, excluding the soil above and the earth below and the earth-balls within, so that a deduction of at least one-tenth, or from 10 to 20 per cent, must be allowed for the contamination of the product in mining. Approximately [376] that.

Q. (By Mr. DUNNE.) Leaving a 90 per cent residuum?

(Testimony of Joseph Jensen.)

A. For example, take the sample which runs 66.13 per cent gypsum. Now, the mine product secured from that would run about 55 or 60 per cent gypsum.

And the sample which contains 75 per cent gypsum, the mine product would contain possibly 65 to 70 per cent gypsum.

Q. Well, haven't you said repeatedly in your testimony in the Lost Hills case that the deduction would be about one-tenth? Didn't you say that over and over again and ring the changes on it?

A. Certainly.

(Mr. Hall resumes.)

The WITNESS.—(Continuing.) I made an examination of each ten-acre tract on the northeast quarter of section 30 in order to determine the amount of gypsite therein deposited, and the quality of such gypsite.

Q. I wish you would take the map which has been marked Plaintiff's Exhibit No. 1, together with your statement of the chemical analysis as furnished by the chemists, and your notes which, I understand, were made in the field at the time, and tell the Court the result of your examination as to the quantity of gypsite and as to its purity, that you found in each particular ten acre subdivision on this northeast quarter of Section 30.

A. (Examining records.) Handling first the question of the quality of the sample and the place from which it was taken: If you will notice the Smith, Emery & Company and Coffman certificates, you will notice that they are characterized by the capital

(Testimony of Joseph Jensen.)

J 12 and then there is a letter followed by a number. Thus: a, b, c, d. Now the letter in the certificate, a, b, c, d, e, f, g, h, i, j, k, l; m; which is my marking on my sample, corresponds with the letter which you will find on the map. Thus, in the ten-acre [377] lot, the southwest of the southeast of the northeast of Section 30, you will find letter "a" written on the map in the center of the ten-acre lot. Now, sample "a" was taken from the ten-acre lot on which it is marked on the map, and it contains 64.52 gypsum as taken. But, of course, in considering the mined product, the proper deduction would have to be made.

The WITNESS.—(Continuing.) The average thickness of that deposit of gypsum on the southwest of the southeast of the northeast of 30 was 12 inches, of the gypsite layer. That was not an average thickness for the surface of the entire ten acres. You will understand that on this ten-acre tract the small red marks with the numbers by them, represent trenches and improvements which are found on that ten-acre tract. Now, in each of these trenches I made from one to two cuts and took a sample across the layer of gypsite exposed in each of these cuts, and combining that sample from all of the trenches into one composite sample, I secured my final sample a. Now, the average which I give you, the thickness, is the average of several measurements I made in the various trenches, and the average sample is the result of this large composite sample of possibly 100 pounds.

Q. Can you tell us how widely diffused over the

(Testimony of Joseph Jensen.)

surface of this ten-acre tract was this deposit of gypsum?

A. The trenches have usually been placed on the small elevations which I mentioned a short time ago in calling attention to the fact that the claim consisted of small elevations and small depressions. I wanted to bring out the fact that the gypsite occurs on the elevations and that depressions are not favorable to the occurrence of gypsite. Now, these various trenches which you find have been placed on the elevations so that each trench represents more or less a small elevation in which the gypsite has occurred, [378] but the occurrence is more extensive on the south side of the small gulch which I have indicated. It is extremely difficult to make any satisfactory estimate of the occurrence of this superficial deposit, because in the same trench the material cuts in and cuts out. That is, in one end of the trench, there will be some gypsite, and in the other end there will be none. Of course, in taking my sample, I took the sample from the occurrence of the gypsite, and where there was none present I took no cut to include in my sample. The trenches, therefore, would represent the positive development of the gypsite. Each of these trenches is approximately 25 to 30 feet long, and about two and a half to three feet wide, and may be a foot and a half to two feet deep. But, of course, in making an estimate a person would enlarge over the area of these trenches and extend it beyond the side of the trenches.

Q. You do not mean to say, then, by that state-

(Testimony of Joseph Jensen.)

ment, where there was an average thickness of 12 inches of gypsite, that that layer of gypsite extends entirely over the entire ten-acre tract?

A. By no means. On the contrary, the 12-inch thickness which I am giving you the average of is merely the thickness which occurred at the various points where I took my sample. And in some cases the deposit will not extend over the one-hundredth part of the ten-acre tract; but I have given the thickness of the bed in order to show how thin the superficial deposit was.

Q. Now, go to your next sample, sample b.

A. Based on my map and my various examinations, as a result of all these examinations I made an approximation or an estimate of the quantity of material which might occur on this particular ten-acre tract—that on the southwest quarter of the southeast quarter of the northeast quarter of section 30, I estimated that very liberally, it seemed to me that possibly five acres may [379] be underlain by this material.

Q. (By the COURT.) Is that ten-acre tract marked A?

A. That is the ten-acre tract marked A, yes, that possibly as much as five acres might be underlain by this 12-inch bed.

Q. (By Mr. DUNNE.) What are you giving—an estimate now, or an actual observation?

A. I am giving my estimate now. I have explained that an actual observation is practically impracticable because of the erratic character of the deposit. Sample B comes from the northeast quarter

(Testimony of Joseph Jensen.)

of the northwest quarter of the northeast quarter of Section 30. It contains 54.71 per cent gypsum, but the correction for mining should be remembered. On this ten-acre tract there are only four trenches in which work has been done. In the trench which is numbered 60 I took a selection sample of the very, very rich crust, which is about from 3 to 5 inches thick, and this sample of the rich crust contains about 73.80 per cent. That is on the Curtis & Tompkins' certificate. But that sample is not representative of any particular thickness other than that 3 to 5-inch layer that I happened to find in that trench. It was a very good looking piece, and I wanted to see how good the best of it ran, so I took the sample.

I will pass C and D and take them up later.

The sample E, taken from the southwest of the southwest of the northeast of section 30—I could facilitate matters if you would let me use that sheet you have there, Mr. Hall.

(Mr. Hall hands sheet of paper to witness.)

The WITNESS.—I might explain that this is merely a typewritten sheet taken from original notes and put in more presentable form for the purpose of a summary.

The sample E, taken from the SW. of the SW. of the NE. of [380] section 30, contains 66.13 per cent gypsum, and the gypsite sample had an average thickness of 19 inches. This sample was an average for the ten-acre lot.

Q. (By the COURT.) Do you mean there was a

(Testimony of Joseph Jensen.)

layer of gypsum 19 inches thick over the entire area of the ten-acre lot?

A. No. Merely that in the various trenches shown by the red lines on map—

By Mr. DUNNE.—I don't understand, your Honor, he is testifying to the actual conditions of the ten acres, or that he is able so to testify.

The COURT.—No, but this memorandum that he has passed up here has a statement following the sample E: "Average for the ten-acre lot," which naturally raised the question in my mind as to whether he meant to say that it was 19 inches thick over the entire area.

Mr. HALL.—No, that is only an average of 19 inches in the particular places where he made the examination.

The WITNESS.—Yes, where gypsite had been developed, and those particular places are shown on my map by the red trenches.

The COURT.—I understand now.

Q. (By Mr. HALL.) Have you made any estimate of the area of that ten-acre tract from which sample E was taken as to the amount of the total area of that ten-acre tract which was covered by a deposit of gypsum?

A. Yes. Approximately two acres.

Q. (By the COURT.) How do you mean that was made? Did you make any excavation in the ground to ascertain it?

A. These trenches were made for that purpose by the Devil's Den Consolidated Oil Company in

(Testimony of Joseph Jensen.)

preparation for assessment work, and patent work.
[381]

Q. (By Mr. DUNNE.) Did you make any excavations beyond those trenches?

A. Beyond these trenches, no.

Q. (By the COURT.) You just took these samples from trenches already made by the defendant company?

A. By the defendant company. And my estimate of two acres is based upon the physical character of the claim, that is, as to whether there are elevations which make it possible for gypsite to be present. Actually, the area, of course, of these trenches is much less than two acres, so that in making my estimate I have enlarged a great deal over the size of the trenches and have taken into consideration the slight elevations and slight depressions on the claim, and in each case have endeavored to make my estimate fairly large.

By Mr. DUNNE.—Now, in order to be correct in the record, we move to strike out that testimony as being speculative.

The COURT.—Very well.

The WITNESS.—(Continuing.) Sample F is on the NE. of the SW. of the NE. of section 30. It contains 63.65 per cent gypsum, but a deduction should be made for the contamination by mining— The layer sampled in the various trenches was 12 inches thick, and this was an average, from the trenches, on the ten-acre lot.

Q. (By the COURT.) There was only one trench

(Testimony of Joseph Jensen.)

on that lot, I understood.

A. Yes, that is true; just that little work there.

Q. (By Mr. HALL.) Did you make any estimate of the area which was possibly, in your opinion, covered by the gypsum in that particular ten-acre lot from which sample F was taken?

A. About half an acre, based on that one improvement and the fact that it covered the small elevation there. [382]

By Mr. DUNNE.—I understand my motion will run to all this kind of testimony, your Honor.

The COURT.—Certainly.

A. (Continuing.) Sample G, on the SE. of the SE. of the NE. of section 30, contained 44.52 per cent gypsum and was taken across a 27-inch layer. This was taken at point 1 on the map, in which crystals occur in earth in a shaft beneath a gypsite layer—that is, an amorphous gypsite layer, and also an earth overburden.

Q. What would you estimate would be the total area—

A. The sample of the ten-acre lot is sample H.

Sample G is a special sample. The sample for the ten-acre lot, on the SE. of the SE. of the NE. of section 30, contained 49.43 per cent gypsum and was taken across a layer of gypsite having an average thickness of 14 inches as found in improvement No. 1 and improvement No. 6.

Q. (By the COURT.) You took two samples from No. 1, did you?

A. Yes, two samples from No. 1—one for a special

(Testimony of Joseph Jensen.)

purpose and the other for a composite sample for the ten-acre lots. Improvement No. 7 had been flooded with oil, so that it was impossible to get a satisfactory cut of the gypsite without so badly contaminating it with oil that it would destroy its value.

The WITNESS.—(Continuing.) I estimated the total area of the SE. of the SE. of the NE. of 30 covered by the gypsum deposit to be about one acre. Sample I is taken from the NE. of the SE. of the NE. $\frac{1}{4}$ of section 30. It contained 46.44 per cent gypsum. It was taken from the improvement marked five eight ten and improvement marked thirty thirty-one.

In that particular ten-acre tract the average area which I estimated was covered by this deposit of gypsite was about two acres. This material in this particular case was principally gypsum [383] crystals and earth. It was not the amorphous gypsite layer.

Sample J came from the NW. quarter of the SE. quarter of the NE quarter of section 30 and contained 59.83 per cent gypsum and the average thickness of the layer was 17 inches and it was an average sample taken from the various improvements on this ten-acre lot. I would estimate that the total area contained in that particular ten-acre lot covered by the gypsite deposit was about $2\frac{1}{2}$ acres.

Sample K came from the NW. of the SW. of the NE. of section 30 and contained 60.52 per cent gypsum. The average thickness of the layer was 20 inches and the sample is an average of the various im-

(Testimony of Joseph Jensen.)

provements on the ten-acre lot. My estimate as to the area in that particular ten-acre lot which was covered by the gypsite deposit was about $21\frac{1}{2}$ acres.

Sample L came from the SE. of the SW. of the NE. of Section 30 and contained 62.54 per cent gypsum and the gypsite layer had an average thickness where it was sampled of 15 inches, and the sample is an average for the various improvements on the ten-acre lot. My estimate of the area covered by the deposit of gypsite on this particular ten-acre tract was about four acres.

Sample M was taken from the east half of the NE. quarter of the NE. quarter of section 30. It contained 57.60 per cent gypsum and is an average sample for the improvements contained on the 20-acre lot. If you examine the map you will notice that those improvements are just on the line. The line happened to cross the top of the gulch bank and all of the gypsite occurring here was right on the dividing line, so that one sample would be more representative. I estimated it about one acre.

I have already described sample 60 as being a picked sample of the very best material in trench No. 60. [384]

No. 64 was taken from the NW. of the NE. of the NE. of section 30, from the trench numbered 64. It was a picked sample of the best material in trench 64, and the material in trench 64 was of the same general character as that in trench 63, and I considered that the sample was representative of the material in both

(Testimony of Joseph Jensen.)

trenches and I used it, therefore, as an average for the ten-acre lot.

Samples C and D came from the West half of the NW. quarter of the NE. quarter of section 30.

(Mr. Hall presents map to Mr. Dunne.)

Mr. DUNNE.—I understand this is simply a map of some of the trenches in the west half of the NW. quarter of the NE. quarter of section 30.

The WITNESS.—Yes; that is an accurate cross-section of the faces—an accurate survey of the material found in the east and west faces of each of the three trenches.

Mr. DUNNE.—You are speaking now of trenches which you found when you went there and which had been opened by the company?

The WITNESS.—I found them there in 1914; yes.

Q. (By Mr. DUNNE.) And that is all this map is—a cross-section of the faces of these trenches?

A. For the purpose of showing the material in the faces, yes.

Q. But that is the subject matter of this picture here, is it now—a cross-section of the faces of these old trenches that you found there?

A. Well, I have headed then “Exposure of Gypsum or Gypsite or Gypsiferous earth on Section 30.”

(Mr. Hall resuming.)

The WITNESS.—(Continuing.) On the west half of the NW. quarter of section 30 I made an examination of the trenches or exposures of gypsum, gypsite or gypsiferous earth. At the time I made my examination these trenches were open trenches. The

(Testimony of Joseph Jensen.)

earth and [385] gypsite that had been excavated had been thrown off to one side in a common pile, and when I found them the trenches were merely open, that is all, just open trenches; there was no work being done. I took measurements of those trenches to ascertain the quantity of gypsite in them. I have reproduced those measurements in the form of a plat or drawing (indentifying paper produced by counsel).

The first two illustrations at the top of the drawing represents the conditions found in the east face and the west face of the east of the three trenches. These trenches run north and south. The next two figures represent the material found in the east face and west face of the center trench. And the last two figures represent the material found in the east face and the west face of the west trench. I got the measurements or data from which I compiled this illustration by the use of a surveyor's chain surveyor's transit, a level, a rod and a measuring stick.

This illustration pretends to portray both the vertical and horizontal extent of these three trenches. They are shown on different scales. This absolutely accurately and correctly portrays the measurements which I took on these three trenches.

Mr. DUNNE.—Before you offer it in evidence, may I ask a question?

Mr. HALL.—Certainly.

Q. (By Mr. DUNNE.) Now, take that first trench; I see a green surface, a red surface, a white surface and a green surface. What does that top green surface stand for?

(Testimony of Joseph Jensen.)

A. The top green and the bottom green stand for rich.

The WITNESS.—(Continuing.) The red surface stands for the material represented by my sample—gypsite.

Q. Well, it stands for gypsum? A. Yes.

Q. And that is mineral inclosed? A. Yes.
[386]

The WITNESS.—(Continuing.) The white and red surface combined represent my sample C. So that the gypsum is included as well in the white as in the red surface. That is also true of each of the figures here. The depth of the trench is given by the scale here. At one end of the trench it is three feet deep; at the other end it has no depth. I am not able to say what the thickness of the superincumbent soil was within the inside of the trench prior to the exposure of the mineral, but I might on the map, because I measured that. That is all given here. You can take it off anywhere you want it. In this particular place in the east face of the east trench the soil was $2\frac{1}{2}$ feet thick.

Mr. DUNNE.—That is all.

Mr. HALL.—We ask that the paper just described by the witness be marked Plaintiff's Exhibit No. 5; and we offer in evidence Plaintiff's Exhibit No. 5 as an illustration of the testimony about to be given by the witness.

(Plaintiff's Exhibit No. 5 is in words and figures following:) [386-A]

WEST TRENCH

East face

West face

Scales

Vertical - one centimeter = one foot

Horizontal - one centimeter = five feet

one
foot

5 feet

EXPOSURES OF GYPSITE ON $W\frac{1}{2}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ SEC 30, T26S-R21E, MDM.

Accuracy measured at 5 ft intervals - Elevations determined by precise leveling.

— Surface of ground and bottom of trench

- - - Top of gypsite bed or layer

No. 37-E
Unite State

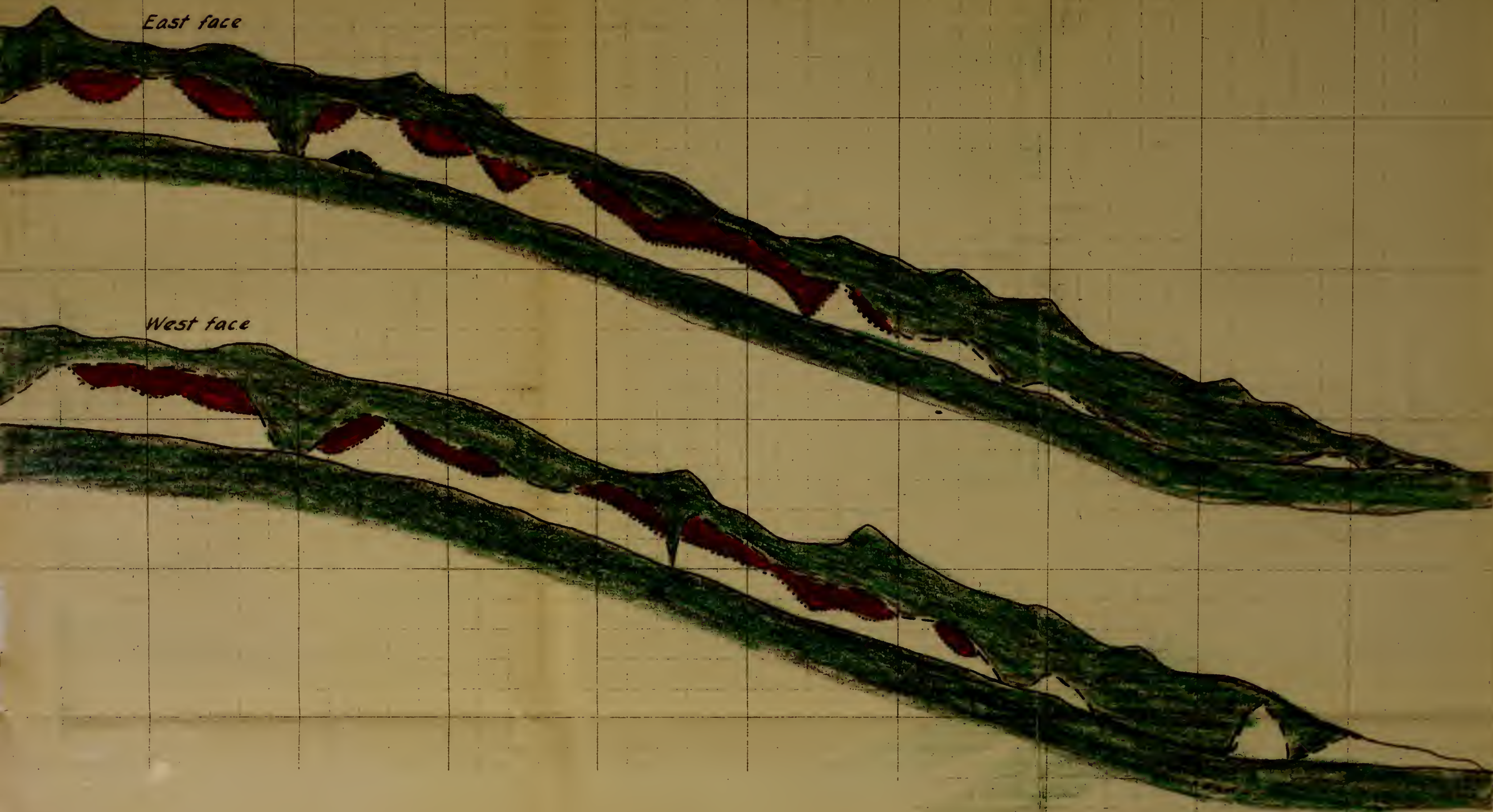
State of Colorado

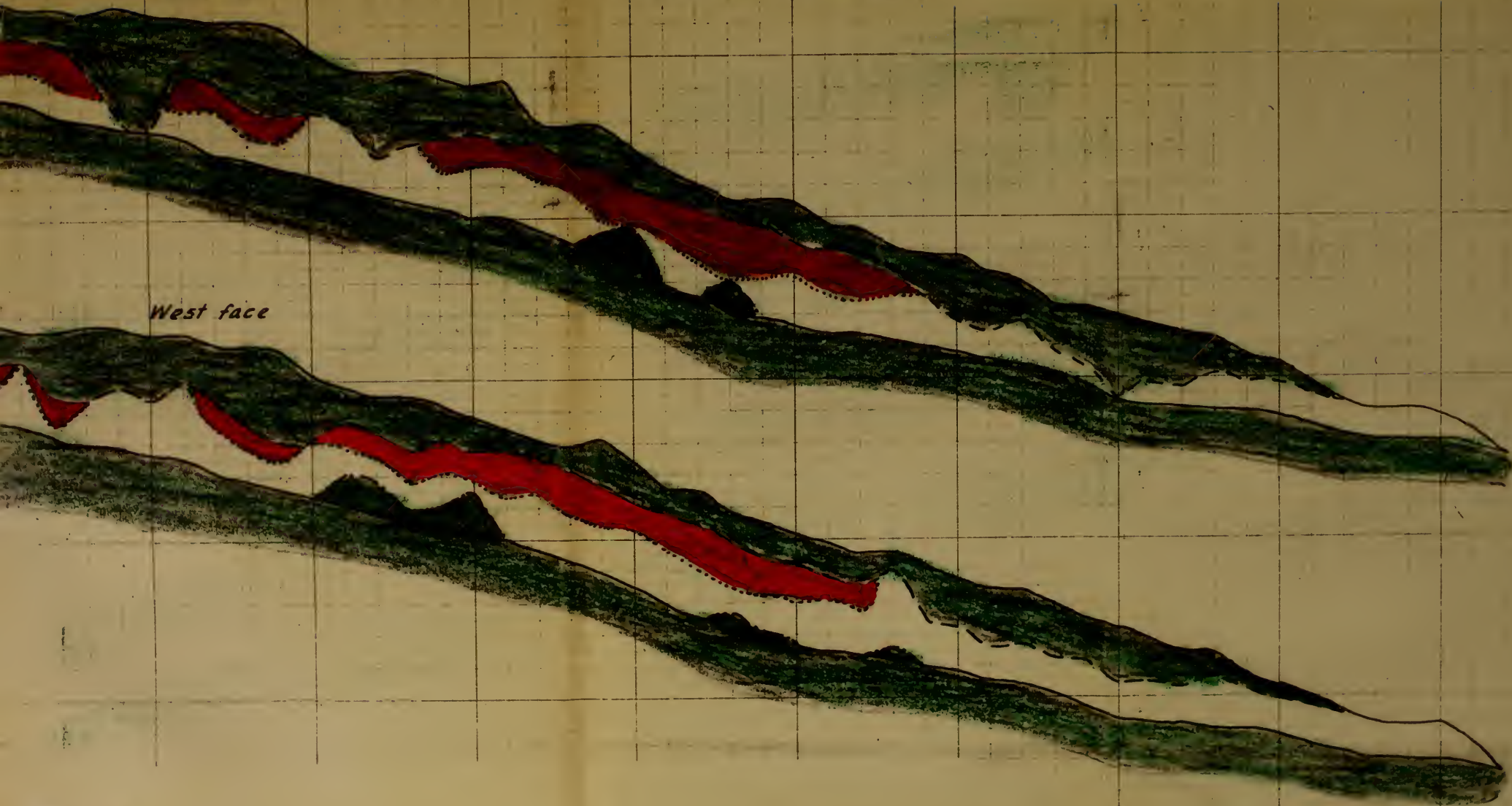
Pliffs - Exp. bed
No. 5

EAST TRENCH

East face

West face



*East face**CENTER TRENCH**West face*

EXPOSURES OF GYPSITE ON W $\frac{1}{2}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ SEC 30, T26S-R21E, MDM.

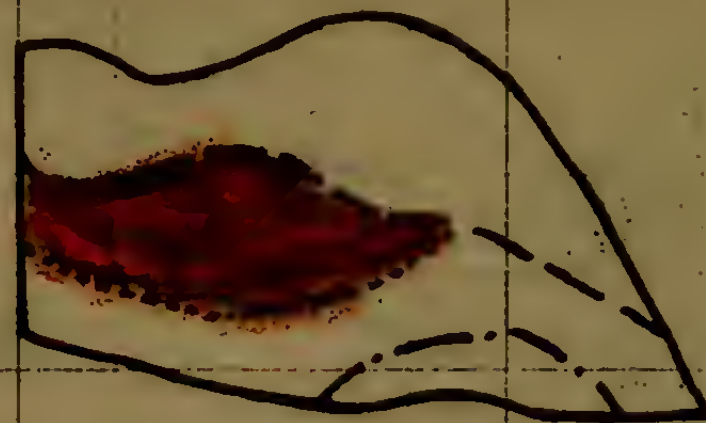
Accurately measured at 5 ft intervals - Elevations determined by precise leveling.

- Surface of ground and bottom of trench.
- - - Top of gypsite bed or layer.
- ⋯ Bottom of "better" gypsite
- - - Bottom of gypsite bed or layer. (Usually same as bottom of trench)
- █ Surface soil above and earth beneath the gypsite layer



Shaded part (as illustrated only in this sketch) represents material taken for sample of the entire gypsite bed or layer between "top of gypsite" and "bottom of gypsite" or "bottom of

trench" (the latter two being generally the same). This sample included all of the material represented by the "better" sample (colored red in trenches above). This sample was taken from 17 different cuts in which the gypsite had an average thickness of 24 $\frac{3}{4}$ inches. The sample of the entire bed or layer contained 58.26% gypsum, but the material as mined would contain approximately 10 to 15% waste, and only about 85% of the bed would be recovered in mining. The mined product would therefore only carry approximately 49 to 52% gypsum.



Colored part represents "better" gypsite, or the material taken for a sample between "top of gypsite" and "bottom of 'better' gypsite". This sample was taken from

13 different cuts over an average thickness of 13.4 inches. The sample contained 75.81% gypsum, but the material as mined would contain approximately 10 to 20% waste, so that the mined product would therefore only carry approximately 63 to 68% gypsum. About 75 to 85% of the bed of "better" gypsite would be recovered in mining.

No. 37-Ex
United States
Swiss Sec. Council
Pliffs-Exhibit
No 5
Filed Aug. 17-1916
Wm. Van Dyke Clerk
By J. F. Green Deputy

(Testimony of Joseph Jensen.)

(Mr. Hall resumes examination.)

The WITNESS.—(Continuing.) I have the average area of the gypsite which was exposed by both the east and west faces of the trench in the west half of the NW. quarter of the NE. quarter of section 30. I made an estimate as to the 75 per cent gypsum. That was the richer material. And that richer material that ran 75 per cent or better, is indicated in this exhibit 5 by the portion that is colored in red. That is not an estimate; that is a careful determination. If you will notice, that is platted on cross-section paper, and then, by means of using a polemeter, I was able to determine the area of the red material exposed in the face. I am speaking of an exposed area susceptible of measurement. I could not determine the outer boundaries of this particular deposit which was exposed by the three trenches shown on exhibit 5; I could only estimate about where they would be.

(Continued on next page.) [387]

Q. How much of an area did you estimate that entire area cut into by the three trenches would cover?

A. The area developed between the east face of the east trench and the west face of the west trench is an area of 58 by 150 feet, or 8,700 square feet.

By Mr. DUNNE.—What area are you speaking of specially?

A. I am speaking of the area on the surface of the claim between the east face of the east trench and the west face of the west trench.

Q. Then you are speaking of trench area and not of an area which is still superincumbent and unexposed soil; am I not right about that? A. No.

(Testimony of Joseph Jensen.)

Q. (By the COURT.) How far are these trenches apart?

A. They are about 6 feet wide and there is—

Q. Well, I mean how far are they apart?

A. They are 20 feet between each of the trenches. Say you have a trench 6 feet, then a space 20 feet, then a trench 6 feet, and a space 20 feet, and a trench 6 feet, which makes a total of 58 feet.

Q. (By Mr. DUNNE.) That is the area you are undertaking to give your estimate on?

A. That is the area.

The WITNESS.—(Continuing.) The trenches are from 225 to 250 feet long. But if you will notice the map, the red only extends through a distance of 150 feet. There was about a hundred feet in each one of these trenches where there was no 75 per cent gypsite exposed at all. There was of the 58 per cent material represented by the sample C—58.26—that is shown in white extending intermittently in some of the trenches and in others extending [388] all the way to the end of the trench. I estimate that the total volume of gypsite excavated from within the area covered by these three trenches amounts to 1,674 cubic feet, or 67 tons. This material has been excavated and is on the dump mixed with the earth, etc. There is still remaining within the two strips between the trenches—that are 150 feet long—there is still remaining 3,720 cubic feet, or 149 tons.

Q. Did you attempt, upon any of your examinations there, to ascertain what area on the surface of the ground was covered by this deposit of gypsum which was exposed partially in the three trenches you

(Testimony of Joseph Jensen.)

have just referred to?

A. The south end of the trenches extend over into the deep gulch, in which no gypsite occurs; and to the east of the trenches and to the west of the trenches there are slight depressions or swales leading into this gulch, in which no gypsite occurs; and to the north of the trenches there is also a slight depression; so that the gypsite is confined to that slight elevation. Now, the total area of that slight elevation, assuming that the gypsite was present in it, would be 12,356 square feet. That would be the maximum area possible.

The WITNESS.—(Continuing.) I have taken photographs of the trenches from which my samples were taken (producing paper).

Q. I invite your attention to a photograph which has been marked Plaintiff's Exhibit 6. Was that taken by you on the NE. quarter of section 30 (handing paper to witness)?

A. Yes, sir. This is taken on the east trench in the west half of the NW.¹/₄ of the NE¹/₄.

The WITNESS.—(Continuing.) That was taken on the west half of the NW. quarter of the NE. quarter. That shows the exposure of gypsite. [389]

Q. (By the COURT.) No. 12 is taken in which trench—the east, or the middle, or the west?

A. It is the west face of the east trench, from near the north end to the south end of the trench.

Mr. HALL.—We offer in evidence exhibit No. 6.

Mr. DUNNE.—Which is photograph No. 12.

(The following is a photographic reproduction of Plaintiff's Exhibit No. 6:) [390]



Photograph No. 12

Without marks of explanation. East trench on
WYNNIE Sec. 30.

NOTE: Photos 12 to 20 inclusive are pictures taken
in the trenches on the WYNNIE Sec. 30. These trenches
are represented by the colored cross section, which is a
separate exhibit. The notes under Photo. 13 contain ex-
planations of markings that are also used on Photos. 15,
17 and 19. Photo. No. 13 on next page.

No. A-37-Eg - U. S. vs. Devils den Co. and
Oil Co. et al

Pls Exhibit No. 6. Filed Aug. 17" 1916.

Mrs. W. Van Dyke Clerk

By J. J. Green Deputy

(Testimony of Joseph Jensen.)

Q. (By Mr. HALL.) I invite your attention now to exhibit No. 7, which is photograph No. 13. There are certain lines indicated there in ink. Is this the same photograph as exhibit No. 6, photograph No. 12 (handing paper to witness)? A. Yes.

The WITNESS.—(Continuing.) The lines in ink are drawn on there for the purpose of bringing out more clearly the top and bottom of the trench and the boundary of the gypsite layer and the dividing line of the 75 per cent gypsum. So that this photograph gives us in one view gypsum running 75.81 per cent and gypsum running 58.26 per cent, according to my sampling and analysis.

Mr. Mr. HALL.—Mr. Dunne, I might shorten this very materially. This legend on here is descriptive of that, and it might entirely save you the trouble of asking him as to each point and each letter.

Mr. DUNNE.—Very well; I will consent to that legend. Let the legend go in.

The WITNESS.—That legend is characteristic of photographs 12 to 20 inclusive.

By Mr. HALL.—We offer in evidence this photograph which has been marked Plaintiff's Exhibit No. 7.

(The following is a photographic reproduction of Plaintiff's Exhibit No. 7:) [391]



photograph No. 13.

Same as No. 12, marked for identification, showing west face of east trench from near north end to south end of trench. Trench on ~~W. 1/4~~ Sec. 30. The upper, solid line a-a is the surface of the ground and top of the face of the trench. The lower, solid line d-d is the bottom of the trench. The line of dashes b-b is the dividing line of the upper, dark soil from the whitish, gypsite below. The lower limit of this layer is usually the bottom of the trench. The material between the lines b-b and d-d is represented by the sample "C", which contained 50.26% gypsum. The dotted line c-c is the lower limit of the better, harder gypsite. The material between the lines b-b and c-c is represented by the sample "d", which contained 75.61% gypsum. At "E" the small cross trench was dug to make sure that no gypsite existed below the bottom of the trench. Opposite side of trench is line G-G.

Note that the soil or waste and the gypsite or ore have all been piled up on the one side of the trench. The hard lumps in the pile F-F only constitute a facing, as soil and softer gypsite was thrown in behind. The hard lumps are the richer gypsite. Some difficulty would be encountered in working such material with a plow and scraper because of its hardness and its irregular upper surface.

No-17-37- Ety - U S. M. L. & Co. Coal
Oil Co. & Co.

Repts. Attached No- 7. Filed Aug-17-1911.

Wm M. Van Dyke Clerk

By J. E. Spruill, Deputy

(Testimony of Joseph Jensen.)

Q. (By Mr. HALL.) I invite your attention to photographs which have been marked Plaintiff's Exhibits 8 and 9. Tell his Honor where those were taken.

Mr. DUNNE.—That would be photographs 14 and 15.

A. Photographs 14 and 15 are the same—the one with marks and the other without marks. The photograph was taken on the north end of the east face of the middle trench, on the west half of the NW. quarter of the NE. quarter of section 30.

The WITNESS.—(Continuing.) All of these photographs which have been already offered in evidence correctly portray conditions as they existed at the time the photographs were taken. They were taken by me with an autographic kodak.

The WITNESS.—(Continuing.) Exhibits Nos. 10 and 11, photographs 16 and 17, are from the east face of the middle trench, from near the north end to the south end. They were taken in March, 1916. That shows the exposure of the gypsite and the overburden of earth.

(The following is a photographic reproduction of Plaintiff's Exhibits Nos. 8, 9, 10 and 11.) [392]

No. 8-37-Eg. U.S. - 1000 ft. in Coast. belt Co. - 100

Revs. to Hotel No. 2. Found Aug 17 1910

Wm. W. Van der Kolk by J. J. Green & party



Photograph No. 14.

Without marks of explanation. Middle trench on
Section, Sec. 30.



Photograph No. 15

North end of east face of middle trench on Section,
Sec. 30. a-a. b-b. c-c. d-d. as explained in notes on photo.
No. 15.
would be

No. 8-37-Eg. U.S. - 1000 ft. in Coast. belt

Revs. to Hotel No. 2. Found Aug. 17 1910

Wm. W. Van der Kolk

By J. J. Green & party



No. 17-37-Eg. U.S.D.S. - Lewis & Clark Co. and
 Puffs Exhibit No. 10 - Field Aug. 17th 1916 -
 Wm. M. Van Dyke Clerk. By J.F. Green Deputy



10

Photograph No. 16.

Without marks of explanation. Same as Photo No. 17.



11

Photograph No. 17.

East face of middle trench from near north end to south end. Trench on W. side Sec. 30. Marks of explanation same as in Photo. No. 16. Note the frequency that the soil cuts out the gypsite at "I", "J" and "K". As usual the mined gypsite and surface soil have been intimately mixed in one pile on the east side of the trench. This picture shows that little of the hard, blocky, richer gypsite occurs in the lower end of the trench.

No. 37-Eg - U.S.D.S. - Lewis & Clark Co.,
 Puffs Exhibit No. 11 Field Aug. 17th 1916.
 Wm. M. Van Dyke Clerk
 By J.F. Green Deputy

The WITNESS.—(Continuing.) Exhibits 12 and 13 is the lower half of the east face of the west trench.

Mr. HALL.—We offer in evidence photographs marked exhibits 12 and 13.

(The following is a photographic reproduction of Plaintiff's Exhibits 12 and 13.) [393]

No-A-37-Eg. U S vs. Lewis & Clark. Coated. Oct 6 & 7
 Plots - Exhibit No 12 = Field Aug 17th 1916.
 Wm M Van Dyke Clerk By J J Green Deputy



Photograph No. 18.

without marks of explanation. Trench on WEST side.
 Sec. 30.



Photograph No. 19.

Lower half of east face of east trench. Marks of
 explanation as far as applicable same as in photo. No. 18.
 Trench on WEST side. Sec. 30.

No-A-37-Eg-
 U S vs. Lewis & Clark. Coated. Oct 6 & 7
 Plots - Exhibit No 13 -
 Field Aug - 17th 1916.
 Wm M Van Dyke Clerk -
 By J J Green Deputy

(Testimony of Joseph Jensen.)

Q. (By Mr. HALL.) I invite your attention now to exhibit 14, which is photograph No. 20. You may state where that was taken.

A. That is the photograph of the east face of the middle trench.

The WITNESS.—(Continuing.) The white bank shown below the apparent real surface of the ground is the gypsite. The assay of the entire band shown in the photograph carried 58 per cent gypsum. The extent, horizontally and perpendicularly, of that exposure of gypsite in that trench is to be shown accurately on that plat there. That is the trench in exhibit No. 5. These photographs are merely pictures of those cross sections.

Mr. HALL.—We offer in evidence Plaintiff's Exhibit No. 14.

(The following is a photographic reproduction of Plaintiff's Exhibit No. 14:) [394]



Photograph No. 20.

The east face of the middle trench on the NW¹/₄ Sec. 30, also shown in photos 16 and 17. The gypsite is the white band. This is the best (not the worst) face of gypsite exposed in any of the six faces in the trenches. Note its irregular upper surface and the number of times the soil cuts the gypsite out entirely.

The oil derrick is that of Devils Den No. 1, the first well on the NE¹/₄ Sec. 30.

NO-A-37-E2

U S vs Devils Den Coupled Oil Co. - et al.

Plaintiff - Exhibit No - 14

Filed Aug - 17 - 1916

Wm M. Van Dyke, Clerk

By J. F. Serra, Deputy

(Testimony of Joseph Jensen.)

Q. (By Mr. HALL.) At the time you took your samples from the various points on the NE. of section 30 did you observe where any other parties had been sampling gypsite?

A. When I returned to the field in October, 1915, I found that the face of several of the trenches had been freshly broken. I was not present when any of the sampling occurred, but I found evidences of samples having been taken.

The WITNESS.—(Continuing.) Those samples were not taken from such a point as, in my opinion, would afford fair samples of the material deposited at that particular point. They were not, for the reason that they were taken of the rich surface veneer. I think I explained that when I took my first samples in the field I made the mistake of sampling the rich surface veneer instead of going back into the virgin material, and in this way the samples would *to* too high. In addition to this fact, several of these samples were not taken across the entire layer of the gypsite, but were taken from the rich surface clods and would therefore be picked samples, such as my sample which I called No. 60, being taken from the upper part of the gypsite layer, which is always the richest part.

In Plaintiff's Exhibit 1, I found that there had been evidence of sampling at the point 11-12 on the—I will give the points without the ten-acre lots. 11-12, 15, 16, 24, 27-29, 30-31, 43, 48, 52, 53, 64 and 66. I have in general described what appeared to be my objection to that type of sample, but I took

(Testimony of Joseph Jensen.)

specific notes as to each of these points. The objectionable features of the manner in which those samples were taken were that they appeared to be picked samples. The principal complaint is that apparently the person taking the samples did not understand this feature [395] that I discovered about the surface veneer being richer and innocently made the mistake of taking the material on the surface. But where the sample was taken from the upper layer, that is, from the top gypsite layer, it could only be a picked sample, unless he had also failed to discover that the gypsite changed in quality as one went downward.

Q. In your examination of this particular land did you make any observations to ascertain whether or not the exposures of gypsum and the places where trenches had been dug and the gypsite taken out—that the work had been carried on with any purpose of keeping separated the pure gypsite from the gangue matter or the surface soil?

A. Yes. I found that in practically every trench. The excavated material had only been thrown out on one side of the trench. Everything was in a common heap. However, at point CD, where the three long trenches are, and where I have shown in my picture the 75 per cent gypsite is blocky, and that had been used as a facing of the dump. If you want to call that a segregation, there had been that segregation; otherwise none.

The WITNESS.—(Continuing.) I found gypsite that had been sacked for transportation from this

(Testimony of Joseph Jensen.)

place. I don't know what quantity. There must have been a few tons, at least. It was all sacked.

Q. Could you tell from the appearance of the sacks, or the appearance of the gypsum in them, as to whether or not they had apparently lain there for some time or had been recently placed there?

A. When I made my first examination in January, 1914, I found a lot of gypsum had been sacked at point No. 58, and when I made my second examination in October, 1914, I found a great deal [396] of gypsum, or relatively a great deal, several tons, had been sacked at CD, and when I returned in October, 1915, this sacked material was still there, and when I returned in March, 1916, this sacked material was still there, and so far as I could determine was in the same condition. Actually, however, I did not make a count of every sack there.

The WITNESS.—(Continuing.) I found the evidence of the excavation of gypsite by the trench and the common dump, but I found no place where there was any evidence of any quantity of material having been removed from the dump as soon as it was taken from the trench.

I am familiar with the deposits of gypsum and gypsite near the town of McKittrick in the State of California; I have inspected them at various times. I have inspected those deposits in October of 1915, and again in the spring of this year. From a commercial standpoint, compared with the deposits of gypsum and gypsite and gypsiferous earth that I encountered on the NE. quarter of section 30, the Mc-

(Testimony of Joseph Jensen.)

Kittrick deposits are more extensive and somewhat better, although not a great deal better, than the deposits in the Lost Hills; but they have the great advantage of being within $2\frac{1}{2}$ miles from the railroad.

By Mr. DUNNE.—Do I understand this witness sampled and analyzed the McKittrick deposits? Are you conveying that impression?

The WITNESS.—I did not intend to convey that impression if you have it. After one has examined this gypsite for a long time he becomes accustomed, by inspection, to judge the character of it.

(Mr. Hall continues examination.)

(Continuing.) I made an investigation to determine what the Devil's Den Consolidated Mining Company had been paying for having this work done. The trenches on the Devil's Den, practically all of those shown on my map, were excavated at the rate of 40 per cent [397] per cubic yard. Gypsite weighs about 80 pounds to the cubic foot; so that it will take about 25 cubic feet to make a ton.

Q. What do you estimate, then, to be the cost per ton of mining and placing on the surface the gypsite found there?

A. Well, you see this gypsite is always covered with an overburden of soil, and making allowance for the excavation of the overburden of soil and for the gypsite itself, based on the practice of the Devil's Den Oil Company, I would estimate about 80 cents to \$1 a ton.

The WITNESS.—(Continuing.) In order to transport gypsite to the market it is usually shipped

(Testimony of Joseph Jensen.)

in sacks. When I was in the Lost Hills they caused some men to sack gypsite in order that I could estimate the rate at which the gypsite I found on the Devil's Den already sacked had been sacked, and I think that was \$1.80 per ton it cost to sack it according to the method they had been practicing.

The freight rate for hauling from the NE. quarter of section 30 to the town of Wasco on the Sante Fe Railroad has been \$3 per ton.

Q. Do you know what is the prevailing price of raw gypsite when used for land plaster in the State of California?

A. Delivered in sacks, in carload lots, gypsite can be purchased anywhere in the San Joaquin Valley for \$7 a ton, either from the Pacific-Portland Cement Company or from the Consolidated Cement Plaster Company of Amboy, California.

The WITNESS.—(Continuing.) That has been the standard price in that community for at least two years. I made inquiry of dealers who had been handling the material for many years, and also of the manufacturers, and found that there had been no change. I did not discover upon the NE. quarter of section 30 gypsum or [398] gypsite or gypsiferous earth that was sufficiently pure to be manufactured into any of the plasters or cements that are commonly used in the trades. The material found on this land is too poor in quality to be of any value for any commercial use or to meet any product offered for sale in the San Joaquin Valley. Its quality is too poor. In my opinion there is not a sufficient

(Testimony of Joseph Jensen.)

quantity of material developed on this particular land to warrant the construction of a mill to manufacture it into plaster or other manufacturing products that are usually made from these three materials. The cheapest kind of a plaster mill, which would only handle about fifty tons of material a day, would cost about ten thousand dollars on the railroad, and of course if you had to pay the additional cost of freight to haul the entire mill out to the Lost Hills you would have to make a very large allowance for freight. That was the price in times of peace, before the war prices of materials prevailed. Of course, under war prices the prices would be much higher, but I am giving you the prices at times of peace. In my opinion there was not a sufficient quantity of gypsum, gypsite or gypsiferous earth upon this land in question to warrant the construction of a mill for the manufacture of those three substances into plasters. In my opinion, the quantity of gypsum, gypsite or gypsiferous earth, or all three of them, upon the NE. quarter of section 30, the land in controversy, gave it no value whatsoever. There was no deposit of any of these three substances upon this land which would distinguish it from vast area of other lands containing similar deposits in that locality. The deposit is very similar to that found in the oil fields generally. There are no deposits similar in quantity and quality in the State of California at the present time that are being mined; that is, no work is going on at the present time. Attempts have been made, but they [399] have not

(Testimony of Joseph Jensen.)

been successful. The deposits of gypsite and gypsiferous earth in this particular quarter section of land was of very ordinary quality. There was nothing with respect to the location and surroundings on this land which added to them, in my opinion, any special value. They were devoid of special value because—well, they lacked quality entirely. They have no special value.

At the time I made my examination of these lands, I think there were twelve wells on the particular quarter section in question which were producing petroleum. I did not make any examination of those to ascertain the probable quantity of petroleum that was being produced. I observed both the petroleum that was being produced and the quantity of gypsum thereon, so as to form an estimate of the comparative values of the land for gypsum or for oil. I could do that, because I could see that a well was producing a large quantity of oil, but I couldn't say the number of barrels it was producing. If a well is producing a relatively large quantity of oil it gave the land a particular and special value for oil; but the gypsum deposits gave the land no value at this time. It was entirely my opinion that the land in question was more valuable for the oil content deposited therein than it was for these deposits of gypsum that I found therein.

Q. Going back to a point I had overlooked: From your examination could you tell whether or not there was any probability of any further deposits of gyp-

(Testimony of Joseph Jensen.)

site beneath those that you exposed and saw exposed in these trenches?

A. No. The best material has been developed. Any other material which would be found would be of less purity than that which has been developed. Of course, for a considerable distance beneath the present surface of the ground one would expect to find these lenses of gypsiferous earth, but they would seldom [400] if ever carry more than 50 per cent gypsum.

Q. And what do you say is the lowest grade of gypsite or gypsum that can be used profitably in the commercial world?

A. That is, the product as sold must be from 80 to 85 per cent pure. The lowest limit, and of course, the upper limit, particularly desired by cement companies and plate glass manufacturers is more nearly 90 to 100 per cent.

The WITNESS.—(Continuing.) I did not find any gypsum that corresponded to those grades upon this land.

I am acquainted with Mr. C. L. McDonald. I have recently interviewed Mr. McDonald with respect to certain visits he paid in the region of the lands in question.

Q. Were you familiar with the development work that had been placed upon the NE. quarter of section 30, in fact all of section 30 and all of section 32 in township 26-21, in the years 1913 and 1912?

A. My first visit was made right near the first of January, in 1914, so I was familiar with conditions

(Testimony of Joseph Jensen.)

as they existed at the end of 1913.

The WITNESS.—(Continuing.) At that time the camp of the Universal Oil Company was located and is located on the NW. quarter of section 32. The Devil's Den property is operated from this camp, although at times there has been a subordinate camp on the NE. quarter of section 20, but the main camp from which these properties are operated is on the NE. quarter of section 32.

Q. Did you know about the end of 1913 or the beginning of 1914 how far north oil wells had been drilled from the main camp of the Devil's Den Consolidated Oil Company or the Universal Oil Company?

A. Yes. The farthest producing wells on the north were [401] located on section 30. That is, north of section 30 and of the Devil's Den property there were no regularly producing wells at that time.

By Mr. HALL.—So far as I know, Mr. Dunne, that covers the general scope of the testimony as to the NE. quarter of section 30. We have also in suit A-57, lands contained in the SW. quarter of section 18.

The WITNESS.—(Continuing.) I have examined the SW. quarter of section 18, township 26 south, range 21 east, involved in suit A-57. I took some samples from that particular quarter; I took three samples, according to the method which I have described in regard to the Devil's Den and the other Lost Hills cases. I had these three samples analysed. Sample A, taken from a single trench on

(Testimony of Joseph Jensen.)

the SE. of the SW. of the SW. of section 18, contained 76.45 per cent gypsum.

Sample C, taken from the NE. of the SW. of the SW. of section 18 contained 63.22 per cent gypsum. But in taking this sample in a large number of trenches it was necessary to omit about half of the material in the trenches.

Sample B, taken from the NW. of the SE. of the SW. of section 18, contained 63.30 per cent gypsum, and was representative of the material in a cellar and a single trench. Aside from the occurrence on these three ten-acre lots there was no gypsite on the entire claim, although some 56 different cuts and about 14 trenches and a couple of shafts had been made on the claim. The gypsite was only exposed on the three ten-acre lots I have mentioned.

There was a little impure gypsiferous earth exposed in other places than those in which I found the gypsite, and that is so common and so universal and of no value so that a person would [402] not be justified in considering it. My estimate as to the entire area of this SW. quarter of 18 covered by this deposit of gypsite would only be a few acres. Two or three acres would be an excessive estimate.

I took measurements of the thickness of the layer of gypsite. None of the thicknesses exceeded 18 inches. I did not discover any deposits of gypsite or gypsiferous earth on this SW. quarter of 18 which in my opinion were of exceptional quality or of special value. They did not lend any value to the land itself because the quantity was very lacking in

(Testimony of Joseph Jensen.)

this case on this quarter section.

There was one oil well on the SW. of the SW. of the SW. of 18 at the time of my examination, but the well was not being pumped at any time during my examination, though it was in condition to be operated. The oil sump contained oil, and there were oil tanks that contained oil and had contained oil. The floor of the derrick was covered with oil. The land is essentially valuable for oil and not at all valuable for gypsum. If anything, this land is a little farther away from the railroad than the NE. of 30, which I have just described. I would say that the same conditions which would govern and the same costs which would govern the production of gypsum from the NE. of 30 would also govern from the SW. of 18.

Cross-examination.

(By Mr. DUNNE.)

Q. I would like to call your attention to Bulletin 413, Mr. Jensen, of the Department of the Interior, United States Geological Survey, entitled "A Reconnaissance of the Gypsum Deposits of California by Frank L. Hess," and under the caption "Lost Hills," [403] to read the following to you, at page 15: "If the Lost Hills are to be regarded as an extension of the Kettleman Hills anticline from which the upper, non-gypsiferous beds have been eroded, it seems probable not only that the hills contain other such beds of gypsite, but that alongside them, for their whole length, such deposits as were noted in sec. 30 will be found. It is not to be supposed that

(Testimony of Joseph Jensen.)

these beds will be equally thick or good in all places, and in spots the gypsite may be entirely lacking."

Is that a correct statement?

A. May I refer you to another quotation—

The COURT.—No; answer the question.

Q. (By Mr. DUNNE.) Is that a correct statement which I have just read?

A. Well, I would like to consider it before I answer it offhand.

Q. You are not prepared to answer it, are you?

A. I want to digest it and see it. You read it too fast for me, while I was trying to find it in my copy.

Q. Now, if you will be good enough to close your book and give me your undivided attention.

A. I can understand it better if I can read it. You are reading me a paragraph of considerable length.

Q. (Re-reading:) "If the Lost Hills are to be regarded as an extension of the Kettleman Hills anticline from which the upper, non-gypsiferous beds have been eroded, it seems probable not only that the hills contain other such beds of gypsite, but that alongside them, for their whole length, such deposits as were noted in section 30 will be found. It is not to be supposed that these beds will be equally thick or good in all places, and in spots the gypsite may be entirely lacking." [404] Is that a correct statement?

A. Why, that is fairly correct. That is about the substance of what I have said.

Q. Now, I will read the following statement to you

(Testimony of Joseph Jensen.)

from the same publication, to which I ask your careful attention:

“The beds in this locality are the most extensive that were seen by the writer in California. Whether they will be workable is problematic. At present the nearest shipping point is Wasco, on the Santa Fe Railway, 25 miles to the east. Water could probably be obtained by boring deep enough almost anywhere in the region. The deposits would need careful prospecting to ascertain their thickness and area, but this would not be difficult, as it could all be done with a shovel or a shovel and mattock. The ground could be easily stripped with teams and scrapers and the gypsite loaded into wagons directly from the scrapers by erecting a platform under which the wagons could be driven.

“It seems possible that a railroad may be built along the base of the foothills of the Coast Range, in which case transportation would not be a serious matter, and if the deposits proved to be of sufficient extent the manufacture of cement plaster might then be undertaken.”

Is that a correct statement?

A. No, that is not correct.

Q. (Continues reading:) “Analyses of gypsum from Sec. 30, made by E. C. Sullivan and R. C. Wells, of this Survey, are as follows”: Whereupon the analyses follow, which I will not burden the record with reading, and I will ask that they be considered read.

“The first analyses shows an equivalent of 75.5

(Testimony of Joseph Jensen.)

per cent of gypsum, so that about one-fourth of the material is foreign matter; the second sample contains the equivalent of 91.2 per cent of gypsum. The analysis shows a slight excess (0.6 per cent) of [405] calcium sulphate, which may indicate the presence of either anhydrite (calcium sulphate not combined with water) or partially dehydrated gypsum. The third and fourth analyses are fuller and show the character of the impurities better. The amount of gypsum indicated is nearer the amount shown by the second analysis than the first."

Is that a correct statement, so far as you know?

A. You mean the entire paragraph you have read?

Q. Everything I have read.

A. Now, if you will take that sentence by sentence I will tell you where it is right and where it is wrong.

Q. Well, can you suggest to me wherein there is any error in that statement as I have read it to you?

A. Yes, I can.

Q. Please do so.

A. On page 6 of that Bulletin he says—

Q. I am calling your attention to page 16—

By Mr. HALL.—I insist he has asked for an explanation by the witness, and the witness is giving it to him.

By the COURT.—The witness may explain it, from his own knowledge, but not from what the other examiner said.

By Mr. DUNNE.—Yes, I want him, if there is anything incorrect in the statement I have just read, to put his finger upon it and tell me why.

(Testimony of Joseph Jensen.)

A. Then take it sentence by sentence and I will analyze it for you.

Q. Very well. (Reading:) "Analyses of gypsum from sec. 30, made by E. C. Sullivan and R. C. Wells, of this Survey, are as follows": Do you deny the analyses were made as represented in that Bulletin?
[406]

By Mr. HALL.—We object to that because it does not say whether it is the Section 30 in question or not. I would like to know, myself, whether it is the section here involved.

By Mr. DUNNE.—Section 30, township 26 south, range 21 east.

By Mr. HALL.—Very well.

Q. (By Mr. DUNNE.) Now I am taking it sentence by sentence, following your own method. Do you undertake to say that the analyses were not made by these two gentlemen of the Geological Survey as represented here? A. No.

Q. Very well. Now, we will take the next sentence: "The first analysis shows an equivalent of 75.5 per cent of gypsum, so that about one-fourth of the material is foreign matter." Is there anything wrong in that?

A. No. I submitted some samples of the same quality.

Q. Next: "the second sample contains the equivalent of 91.2 per cent of gypsum." Is there anything wrong in that?

A. I can go and pick a sample that will run a hundred per cent.

(Testimony of Joseph Jensen.)

Q. Is there anything wrong in that?

A. You don't tell how the sample was taken and what it represented.

Q. I didn't ask you what you would do, but I am asking you if there is anything incorrect in that statement I have just read?

A. I will concede that you can get a sample of that purity, yes.

Q. Well, will you concede that the analyses made by these gentlemen, the second sample, contained the equivalent of [407] 91.2 per cent gypsum?

A. Certainly. Certainly.

Q. (Reading:) "The analysis shows a slight excess (0.6 per cent) of calcium sulphate, which may indicate the presence of either anhydrite (calcium sulphate not combined with water) or partially dehydrated gypsum."

You have no objection to that?

A. Not at all.

Q. (Reading:) "The third and fourth analyses are fuller and show the character of the impurities better." You don't object to that, do you?

A. No.

Q. Now, I read the last sentence to you: "The amount of gypsum indicated is nearer the amount shown by the second analysis than the first." Is that incorrect?

A. Now, what does he mean? Will you explain what he means by that sentence? Does he mean the amount of material throughout the Lost Hills is more truly correct 90 per cent, or 75 per cent and less?

(Testimony of Joseph Jensen.)

Q. Now, you have heard the sentence read. Put your own construction upon it. Do you agree to it?

A. If the statement means that material containing 90 per cent gypsum is widespread on section 30 then I most emphatically state that it is incorrect.

The WITNESS.—(Continuing.) I am twenty-nine and a half years old. I graduated from the University of Utah in 1908, from the State School of Mines; specialized at Freiburg, in Germany, and I secured a Master's degree from Columbia in geology and mining engineering.

I was mining editor for the Salt Lake Tribune before [408] entering the Government service during that summer; a matter of two or three months. Then I went into the Government service. I was in the Government service from 1908 to 1909, in the capacity of mineral inspector, at a salary of \$1,800 a year, with \$3 per diem, making a total of \$2,800.

I was out of the service from 1910 to 1913. Those three years were leave of absence. I spent at least one of those years in school in Germany. That is the Frieburg experience. I was at Columbia one of the other years. The third year of this interval I was living in Germany and traveling in Europe.

When I returned to the Government service in 1913, it was in the capacity of a mineral inspector of the General Land Office. In the same capacity, same salary and same duties. That has been my relation to the Government and to this case ever since, except my salary has been increased.

I have never made an examination and analysis of

(Testimony of Joseph Jensen.)

gypsum deposits in the field in New York State, in Ohio State, in Michigan, Virginia, in Texas, Iowa, Kansas, Colorado, Oklahoma. I have made inspections of deposits in Nevada that, by visual inspection, I could tell were 95 to 100 per cent pure. I have not made an inspection of deposits in Wyoming, the Dakotas, Montana, Alaska, Europe.

Q. Did you, in any substantial sense, go into this matter of gypsum until you went up here to this Lost Hills territory?

A. Yes. In Utah I examined State selections, in Southern Utah, and also recommended the withdrawal of about three or four townships until that matter could be investigated.

The WITNESS.—(Continuing.) I took samples of the contents in those cases, and had them analyzed. Of course there was rock [409] gypsum. We didn't pay any attention to the gypsiferous earth. I was engaged a matter of a few months in inspecting this rock gypsum in Utah. Outside of that my principal gypsum activity has been here in California. Of course I have examined shales in New Mexico that were gypsiferous in character, the same as the shales and tertiary deposits of California. They were cretaceous in New Mexico.

Q. Now, in your deposition in the Lost Hills case you referred to gypsum in these various states which I have named here, this long list of states and places, and you also referred to various geological horizons therein in which gypsum was deposited. I am fairly correct in saying, then, that when you made those

(Testimony of Joseph Jensen.)

statements upon the deposition you were simply telling us what you had been reading up in books about those places?

A. Well, that is the information a person accumulates by going to school. That is my experience, the knowledge that I have acquired.

Q. Now, did you read up on gypsum to qualify yourself as a witness in this case?

A. I certainly have studied gypsum from beginning to end.

The WITNESS.—(Continuing.) I first went to the Lost Hills territory in January, 1914. I was there two or three days on that occasion; maybe four. I went there next in October, 1914.

Q. And how many days were you there then?

A. Well, you see I made the examination of the Lost Hills claims, now, so I was there about a month and a quarter; sometime from the first of October until along in November. I went there again in October, 1915. I was there just a few days at that time. It was for the purpose of re-examination, to testify [410] in court. I went there finally in March, 1916. I was in the Lost Hills country during all of the month of March, and I was working on these and other lands in the vicinity. I could not segregate the time without going through my notes.

Q. Now, that is about the scope of your experience, personally, concrete experience with gypsum, is it not?

A. No, no, no. No, I examined about two square miles of land about a mile and a half or two miles

(Testimony of Joseph Jensen.)

and a half from Taft in the oil fields in which the same question was involved.

Q. Was that examination that you made by visual inspection, as you call it?

A. No, sir; that was made with the same care and skill as the examination in the Lost Hills. I examined the land by ten-acre tracts, and took samples.

Q. Well, that was part and parcel of your general work up there at that time, was it not?

A. Well, you were limiting your first questions to the Lost Hills, and I am telling you of other work I have done in connection with gypsum.

The WITNESS.—(Continuing.) That was not done in about the same time; that was done in January and February, 1915.

I was up there in January, 1914.

Q. You were up there in October and November, and finally in March, were you not?

A. If you want my general oil-field experience, the time I spent in the oil fields, where these deposits occurred, and where I have observed them, I would have to lengthen that.

Q. I am asking you as to the length of time you spent in making special examination of gypsum.

A. I understood that you were limiting it to the Lost [411] Hills, I might add, if you want a little more regarding my experience in that connection, that I made a personal visit in Coalinga and McKittrick and Taft and Fellows and Maricopa and Buena Vista Hills and the Elk Hills and the Lost Hills, and throughout the west side of the San Joaquin

(Testimony of Joseph Jensen.)

Valley I have studied the gypsum question, and have interviewed railroad men about freights, and also consumers, and also went up and down the San Joaquin Valley, and in addition to that I visited the deposit at Amboy, and also visited a large number of gypsum manufacturers in Los Angeles, and visited a gypsum deposit in Nevada, and have inspected a deposit at King City, California, and in fact have made a thorough study and visited personally everything in Central California in connection with gypsum.

Q. Did you make a single excavation?

A. Made or caused to be made?

The WITNESS.—(Continuing.) Outside of the trenches to which I have testified, I caused the man who was working with me to make excavations where necessary on the Devil's Den claim. They would be alongside of trenches, or in the sides of trenches, or in the bottoms of trenches, or inside of shafts. That is all the excavations I made or caused to be made in the Devil's Den territory. In the Lost Hills I made or caused to be made excavations of the same general type only.

I have never been employed in any enterprise engaged in the mining of gypsum. I have never been employed in any enterprise engaged in the shipping or transportation of gypsum. I don't think I have ever been employed in any enterprise engaged in the use of gypsum for any purpose of the arts and manufacture. I have never been employed in any enterprise engaged in the sale of gypsum.

(Testimony of Joseph Jensen.)

Q. Have you ever had the slightest personal experience as a matter or business in the extraction, transportation, manufacture or sale of gypsum?
[412]

A. Why, I think all of my Government work in this connection is very material in that regard.

Redirect Examination by Mr. HALL.

Q. Your attention has been invited to page 15 of Bulletin 413 entitled "A Reconnaissance of the Gypsum Deposits of California by Frank L. Hess," with notes by Steiger. I call your attention to this, which is found on page 6, as follows:

"In an endeavor to supplement what was known the writer spent a part of the winter of 1906-7 in a reconnaissance of various gypsum-bearing localities of the State. The time and money available did not permit visits to several other acres where deposits of more or less importance are said to occur, and for lack of time the deposits visited could not be examined in detail." Do you know how long the author who made that statement occupied in making this examination which he treats of in this work?

A. No.

Q. (By Mr. HALL.) Do you know whether or not in this publication there is any statement as to how long a time was spent by Mr. Hess in gathering the data from Section 30 in 26-21?

A. (Examining book.) Why, it says here, in connection with this examination, reading from page 14, third paragraph, about the eighth line: "It was not practicable with the tools at hand to dig to any

(Testimony of Joseph Jensen.)

considerable depth, so that the thickness of the gypsite was not determined.”

Q. (By Mr. DUNNE.) Go ahead and read the next sentence.

A. Well, that is what I wanted to call attention to.

Q. Well, read the next sentence.

A. “Mr. Orlando Barton stated that he had at a number of places dug into the gypsite to a depth of 4 feet without passing through it.”

Q. (By Mr. HALL.) That does not say it was on the land in question, does it?

A. No, it does not.

Q. Is there anything to indicate in this sentence read from page 15, or the description of the analysis which Mr. Dunne has dwelt upon, to show the manner in which those samples were taken. [413]

A. There is nothing.

Q. So that can you judge from the description of the samples and the results which the author has given here whether those are typical samples or are selected samples to show a high grade of gypsum?

A. There is nothing in the statement as read to show the quantity of material sampled, or that the samples are representative of it, or anything about the method of sampling.

Q. Is there anything in that statement that shows the quantity and extent of the deposition of gypsum in question? A. No.

Q. Is there anything in that statement to show whether or not the deposits upon the land in con-

(Testimony of Joseph Jensen.)

troversy were of exceptional quality or of specific or special value?

A. The one sample of 90 per cent, of course, would represent an exceptional quality. But unless there was any quantity of that material it would not have special value.

Q. Is it not a fact that on page 15 in reference to these particular deposits that the author says: "Whether they will be workable is problematic?"

A. Yes.

Mr. DUNNE.—I read that myself.

The COURT.—This examination by Mr. Hess was made when?

The WITNESS.—In 1907.

Mr. DUNNE.—This was published by the Government in 1910?

Mr. HALL.—Yes.

Mr. HALL.—Do you intend this cross-examination to stand as the cross-examination in the Lost Hills case?

Mr. DUNNE.—I have no objection.

The COURT.—Very well; it may so stand.

Mr. HALL.—And we may consider that the general inquiry [414] I have made goes into 57 without repeating it?

Mr. DUNNE.—Certainly. [415]

(The deposition of Joseph Jensen, taken in the proceedings pending in the United States Land Office at Visalia, California, involving the same lands as are embraced in suit A-52, taken on the 5th, 6th, 7th, and 8th of April, 1916, before J. D. Brown,

(Deposition of Joseph Jensen.)

Notary Public, at San Francisco, California, and offered in evidence by the Government in suit A-52, is as follows:) [416]

Deposition of Joseph Jensen, Taken by Stipulation of Counsel on April 5th, 1916, at 11 o'clock A. M., Before J. D. Brown, Notary Public, San Francisco, California.

Direct Examination.

(By Mr. MURPHY.)

The WITNESS.—I am a Mineral Inspector in the Field Service of the United States General Land Office; Mining Engineer and Geologist. I entered the employ of the Government in the summer of 1908, and was employed continuously until 1910; then I re-entered the service in the summer of 1913, and have been employed continuously since then, making a period of approximately five years.

My present headquarters are in San Francisco.

I am a graduate of the Utah State School of Mines, from the course in mining and engineering, in 1908. I spent one year doing post-graduate work at Freiberg in Germany at the Royal School of Mines. I have degrees of Master of Arts in geology and mining engineering from Columbia University in New York. The Columbia degree was in 1913.

I was a mining engineer and geologist at the Bamberger-De Lamar Gold Mines Company, De Lamar, Nevada. I have done geological work in the several mining districts of Utah, particularly in the Tintic mining district; and in the San Francisco mining

(Deposition of Joseph Jensen.)

district in the vicinity of the Horn, Silver and Cactus mines. I was mining editor for the "Salt Lake Tribune." I have also been engaged in engineering work of a general character. I surveyed the water-works system for American Fork, Utah; and did considerable office engineering work for Richard R. Lyman, who is one of the State Road Commissioners of the State of Utah.

I have traveled extensively through the United States and [417] Europe, and have visited mining centers in Germany, Austria, Belgium, England, Scotland, Wales, New Jersey, Pennsylvania, Utah, Idaho, Nevada and California.

My work in the field service of the General Land Office during the five years I have been in the service has consisted of classifying lands as to their mineral and nonmineral character, with reference to the application of the land laws of the United States. My duties require that I make examinations in the field of occurrences of minerals situated upon the public lands of the United States and privately held lands adjoining thereto. I have been engaged in that character of work during my employment by the Government almost continuously.

In the course of my official duties for the General Land Office I had occasion to examine the lands embraced in the so-called Lost Hills Mining Co.'s claims, described as follows: Visalia M. A. 03431, embracing the NW. $\frac{1}{4}$ of Sec. 30, T. 26 S., R. 21 E., M. D. M.; also M. A. 03432, described as SE. $\frac{1}{4}$ of

(Deposition of Joseph Jensen.)

Sec. 30, same township and range; also M. A. 03448, embracing the NW. $\frac{1}{4}$ of Sec. 32, same township and range; also M. A. 03457, embracing the NE. $\frac{1}{4}$ of Sec. 32, same township and range; also M. A. 03459, embracing the SW. $\frac{1}{4}$ of Sec. 32, same township and range, all of which are involved in this proceeding. This examination was made in the months of October and November, 1914. Further examination was also made in the month of October, 1915, and March, 1916. Something more than a month was spent in making the original examination. Between a week and two weeks has been spent in examining the lands embraced in these locations, since.

I made a special study of the gypsum feature of these lands. In addition to my examination of the gypsum feature of these lands, I have made a special study of the question of gypsum. [418] Gypsum is one of the common minerals occurring in the earth's crust. It is hydrated calcium sulphate. It consists approximately of 32% lime, 46% sulphuric anhydride, and about 20% water. The chemical symbol is $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$.

Q. (By Mr. REDDING.) Any other symbol for gypsum but this? Does gypsum occur in any other combination that can be called gypsum?

The WITNESS.—This is the composition of gypsum, and any substance having this composition, if occurring in a natural state, would be mineral gypsum.

(Continuing.) Gypsum is a nonmetallic substance. Gypsum is one substance which is of wide

(Deposition of Joseph Jensen.)

distribution in the earth's crust. It is found particularly associated with deposits of salt, deposits of shales, and practically any geological formation or horizon which has been formed under arid conditions will contain deposits of gypsum in a more or less pure or impure state.

Q. What are the geological horizons in the United States where gypsum is found?

A. Gypsum occurs in the Silurian formation in New York and Ohio and Michigan. It occurs in the lower carboniferous in Virginia and Michigan. It is found in the Permian of the Middle West, extending through Iowa, Kansas, Colorado, Oklahoma and Texas. It occurs in the Triassic of Wyoming and Nevada. It occurs in the Jurassic of Utah. It occurs in the tertiary formation of California and the Gulf States. It is also found in Alaska and Dakota and Montana.

In the foregoing citations which I have made I have been referring to deposits of rock gypsum of exceptional purity and thickness. Associated with these deposits of pure gypsum there are gypsiferous beds or beds which contain small quantities of [419] gypsum. These are even more widespread than the deposits of pure rock gypsum. Mention of their occurrence is seldom made in publications of economic geology, and one finds best reference to them in scientific publications dealing with pure geology. For example, the Permian of the potash district of Germany produces immense quantities of potash and little or no gypsum. The occurrence is

(Deposition of Joseph Jensen.)

essentially one of potash, but associated with potash are common salt, rock salt, gypsum, and many other minerals. Thus, also, in the State of Utah, commercial deposits are being developed at Nephi, and one would be inclined to believe that this was the only deposit of gypsum in Utah. On the contrary, the Jurassic formation of Southern Utah contains deposits much more extensive than those of Nephi.

I have traced the outcrop of a bed of rock gypsum for more than twenty miles in this region in southern Utah. This bed had a thickness of more than fifty feet. Associated with it in this series, principally overlying it, was a formation of gypsiferous shale or gypsiferous earth. This gypsum content was important, but varied between wide limits. Likewise in southeastern Utah in the San Juan immense geodes have been found containing perfectly pure crystals of gypsum. The valley of the Virgin River in southwestern Utah cuts through several hundred feet of such gypsiferous material. In California the tertiary formation is widespread in the Coast ranges. Here the gypsum of the tertiary is of the character which I have described as a gypsiferous earth, rather than of the rock gypsum type. In addition to these occurrences in older rock gypsum is also widespread in the desert basins that now exist in Southern California, Nevada and Utah and New Mexico. Some of these deposits are of exceptional purity, but many of them are of the gypsiferous earth variety. I might state [420] further that in Kansas, and Texas particularly, the gypsum deposit in the older rocks

(Deposition of Joseph Jensen.)

has been redissolved and reprecipitated by springs so as to form deposits known as gypsite. In Kansas particularly these deposits are extremely widespread. Owing to the manner in which they have been formed, they are often as pure as the parent rock gypsum from which they have been derived. In all regions where gypsiferous shale occurs it exhibits a tendency to migrate too near the surface so as to form superficial deposits entirely dissimilar in origin and structure and character from the gypsites of Kansas. Deposits of this type occur in southern Utah and in the tertiary of California.

Q. Referring to the lands in question, I wish you would briefly give a statement of the geology of the region in which these claims are located?

A. The formation exposed in the crest of the Lost Hills is a tertiary formation, known as the "Etchegoin." It is one of these formations which contains gypsiferous earth which I have described above.

Q. (By Mr. REDDING.) Are you seeking to verify or change the geological report of Arnold?

The WITNESS.—Arnold never said much about the Lost Hills. The manner in which I determined the age of the formation in the Lost Hills was by means of fossils secured in the wells of the Universal Oil Company and in the oil sand. These fossils were used to correlate with others described by Arnold as belonging to the Etchegoin, so that the determination would agree with Arnold's classification of the Etchegoin.

(Mr. Murphy resuming.)

(Deposition of Joseph Jensen.)

Q. Where does this gypsiferous earth outcrop in this region? [421]

A. Gypsiferous earth will occur through the entire formation which is not a compact or solid one as lenses. These lenses will occur distributed over various parts of the crest of the Lost Hills. Superficial deposits of gypsite have formed on the surface from such of these lenses as may have outcropped.

The WITNESS. — (Continuing.) Throughout the Lost Hills these outcrops are extensive, and are found from the extreme southern end where the hills rise from the valley floor along the crest to the extreme northern end, where the hills again merge into the valley floor. Allied formations of the same general character occur along the flanks of the Diablo temblor ranges and in parts of the anticlinal ridges that occur along the west side of the San Joaquin Valley, such as anticlinal ridge, the Kettleman Hills, the Lost Hills, the Elk Hills, and the Buena Vista Hills. These tertiary formations that flank the Diablo range and the Temblor range extend from Alameda County southeastward into Kern County and around the south end of the San Joaquin Valley, and again northward to the vicinity of Bakersfield, and represent an area of land more than 200 miles long and from 10 to 15 miles wide. It is in this region that scattered occurrences of gypsiferous earth and gypsites are to be found.

Q. I hand you cross-section marked Government Exhibit "A," purporting to show the formation of this region, and ask you to identify and explain it.

(Deposition of Joseph Jensen.)

A. This is an "Ideal Section" prepared by myself for the purpose of showing the occurrence of gypsite on the west side of the San Joaquin Valley in an area 150x15 miles. It represents a section from west to east, and is general in character. The red dashes in the belt marked "Various Tertiary Formations" are intended to roughly represent beds of gypsiferous earth. The yellow [422] mark on the surface and the part between the lines A-B and C-B represent the surface concentration and the region in which surface concentration of "amorphous" gypsite always occurs.

On the left-hand side of the map the slope is supposed to represent the "East slope and foot-hill belt of the Diablo and Temblor Ranges" and is marked by A-B. The region marked C-D may well represent a section across such ridges as the anticlinal ridge, Kettleman Hills, Lost Hills, Elk Hills, and Buena Vista Hills.

Mr. MURPHY.—The Government now offers in evidence cross-section marked Government Exhibit "A," as identified by Mr. Jensen.

(Government Exhibit "A" is in words and figures following:) [423]

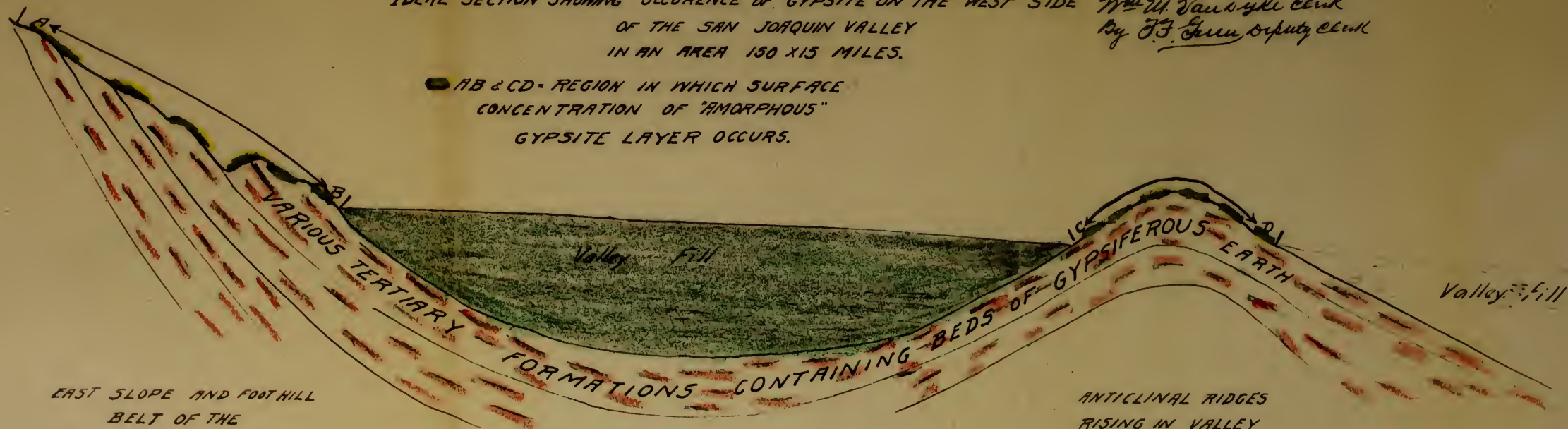
Pass-Exhibit A

Filed Aug. 22. 1916

ггггг. Гаушке ссск

By J. F. Fenn Deputy Clerk

AB & CD - REGION IN WHICH SURFACE
CONCENTRATION OF "AMORPHOUS"
GYPSITE LAYER OCCURS.



EAST SLOPE AND FOOTHILL
BELT OF THE
DIABLO AND TEMBLOR
RANGES.

ANTICLINAL RIDGES
RISING IN VALLEY
SUCH AS THE
ANTICLINAL RIDGE
HETTLEMAN HILLS
LOST HILLS
ELK HILLS
BUENA VISTA HILLS.

Mr. MURPHY.—The purpose in offering this cross-section, marked Government Exhibit “A,” is to show the position of the formation containing the beds of gypsiferous earth in the San Joaquin Valley, and particularly on the lands in question.

Mr. REDDING.—Well, the defendants will have to object to this matter as being incompetent to prove any of those facts. I understand the map is supposed to represent a cross-section from west to east and 150x15 miles. We object to it on the ground that it is not competent evidence to show the geological formation of that particular territory. We would prefer, Mr. Murphy, that Mr. Jensen testify to some particular piece of land which he has inspected personally. I do not suppose you intend that he has been over this territory, and this furnishes a geological, physical and geodetic survey in this matter resulting therefrom.

Mr. MURPHY.—This matter, of course, can be brought out on the cross-examination. I will state, however, that Mr. Jensen has covered the territory embraced in this cross-section.

Mr. REDDING.—Yes, but that is supposed to represent not only superficially, but what he believes to lie below the surface for a certain depth. [424]

The WITNESS.—It merely illustrates the result of my geological observations in this district.

Mr. MURPHY.—Q. In your examination of lands embraced in mineral applications based upon non-metallic substances, what tests do you apply in passing on the application?

(Deposition of Joseph Jensen.)

A. There are a number of tests that I apply. The first, and foremost test is as to whether the deposit is subject to entry as a lode deposit or as a placer deposit. In case the deposit is subject to entry as a lode, it is necessary that a vein be exposed or developed containing the substance sought. Thus, for example, a bed of phosphate rock occurring between two beds of limestone or other material would be classified as a lode. The element as to whether the deposit exposed in the lode was of present commercial value or not would not have a great deal of importance, for the reason that conditions might change in depth on the lode and the outcrop of the lode would be such as to justify a prudent man in spending time and money in the hope of developing a paying deposit.

The test regarding a placer claim which I have applied is essentially different from this. Placer deposits without exception, save oil, are surface deposits and are accepted for what they are and not what they may become. In examining a placer claim, as for example a gold placer, I would expect the claimant to show something more than mere colors of gold.

Dealing specifically with nonmetallic deposits, such for instance as limestone, this test shows its value more particularly. Limestone is widespread throughout the country. Some small percentage of lime will be found in many rocks. It is so widespread that in mountain regions, if the mere showing of limestone were sufficient, most any tract could be

(Deposition of Joseph Jensen.)

classified as a tract bearing limestone. My experience, therefore, has led me to draw a dividing line as to limestone; not that I would reject the limestone and [425] say that no limestone would establish a mineral discovery on a placer mining claim, but rather I have applied the rule of exceptional quality and special value. If a limestone has been so altered as to form a deposit of marble which is of special value for construction purposes and interior decorating, I would consider such a deposit clearly as a valid mineral discovery of a placer mineral claim. If the limestone were exceptionally pure so that it was desirable for use as a flux in a smelter, I would consider it a valid mineral discovery for the reason that such high grade and pure limestones are not widespread in occurrence. On the other hand, if stone contains a small percentage of calcium carbonate or limestone and because of this reason imparted a certain hardness to the rock so that the rock was desirable for use in making road metal or ballast for roads, I would not classify it as a valid discovery of limestone. This is because rocks of this type are so widespread in occurrence that any tract of land containing a hard rock, if favorably situated near a region of demand, can be used. In other words, I expect the mineral discovered to have a quality inherent within itself as the basis of classifying it as a mineral discovery, rather than the mere fact that it is near some locality where it can be used. The core of the Sierra Nevada Mountains in California consist essentially of a granite formation. This granite

(Deposition of Joseph Jensen.)

is found many miles from railroad centers, so that at the present time it lacks entirely any element of commercial value.

Since I apply the test of present value as the basis upon which a placer mining claim must rest, more than its hypothetical future value, it is evident that some weight must be given to the commercial value at the time the application is made, and at the date of location on the mining claim. I do further expect [426] in my examinations that a valid discovery of mineral will be such a one as to justify the simplest type of common development for that type of deposit, so that a product could be manufactured which would be able to stand as an average or a near average of the commercial products on the market. I might illustrate this in the case of limestone which may be burnt for making burnt lime. A low grade limestone, situated favorably to a small community, could be burnt for making burnt lime for motor for houses. Deposits of this character would be widespread. Here actual use would be made of the limestone.

Mr. REDDING.—May I ask for information or enlightenment? Do I understand you to say that which determines the mineral character of whatever you examine is its inherent quality plus its immediate commercial value?

WITNESS.—No, I would not say “plus.” I would say “and also.”

Mr. REDDING.—Do I understand you to say in your effort to define a piece of earth which you have

(Deposition of Joseph Jensen.)

investigated as to whether it is a mineral, in the sense of a placer mineral location, that if it were, we will say, 30% pure gold and 30,000 miles from a place of sale, that would not make it a mineral?

WITNESS.—I draw a dividing line between metallic and nonmetallic minerals.

Mr. MURPHY.—We are dealing with nonmetallic minerals.

Mr. REDDING.—We will say gypsum is non-metallic. Suppose you discover $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$, that you find that it is not present in a locality where it can be commercially used. It would not be, then, a placer discovery until it becomes commercially utilizable?

WITNESS.—I would not go that far. The question of [427] commercial value would be an element of present value.

Mr. REDDING.—But it is an element of its mineral character?

WITNESS.—It would be an element but not a complete test alone. Now, returning to my illustrations of the impure limestone which would be used in a farming community for making burnt lime, it is evident here that the limestone is actually being put to commercial use. This usage is not because of the fact that the limestone is pure, but that it is near at hand. It would not be an article that could compete with the average burnt lime. Its sole value would rest upon the fact of its nearness to a community. I may go further for example, in illustrating the test which I apply.

(Deposition of Joseph Jensen.)

Portland cement is a product manufactured by taking a clay substance, argillaceous substance, and a calcareous or limey substance, and burning the two together after crushing and fine grinding. It is possible to find an impure limestone with just enough shale in it so that with the addition of some very pure limestone a Portland cement can be made. I would consider that a very pure limestone, because of its rareness and special value, would provide the basis of a mineral discovery; but I would hold that impure limestone containing shale or argillaceous matter would not be the basis of a valid discovery on a placer claim, for the reason that deposits of this type are so widespread that vast tracts on the public domain could be so appropriated.

I may further illustrate my point with clay. Clay is very common; in fact, almost universal in its occurrence. A shale is merely a consolidated clay. Now, a clay that could be used for making ordinary building brick or that could be used for making Portland cement, would not constitute a valid discovery of mineral [428] for the reason that it is so widespread and so common that it imparts no special value to any particular tract of land.

Mr. REDDING.—What is a shale?

WITNESS.—Shale is merely consolidated clay that has been subjected to heat and pressure through geologic time. If on the other hand, I should encounter a deposit of fine clay or Kaolin which would be of great value for making pottery or china, or even a fire clay fit for making fire brick, I would con-

(Deposition of Joseph Jensen.)

sider clay deposits of this type as proper discovery upon a placer mining claim, for the reason that such deposits are not widespread in occurrence. They are of special quality and impart special value to the land upon which they occur. Of course in all these cases where I have been dealing with the question of quality, it is self-evident that the quantity must parallel it. Unless there would be a quantity of material that would justify even the simplest kind of operation under the most favorable conditions, the deposit could not be classified according to my method as a mineral discovery on a placer mining claim. Thus by careful work one is able to find seams of perfectly pure calcite or limestone in a very impure lime rock. Clearly these small seams of calcite would never pay for any sort of mining, no matter how favorably situated. In the same way, small bands of fire clay having no quantity and lacking extent, would not be such that I would feel justified in considering them a valid discovery on a placer mining claim.

Now, as to this element of commercial value, my idea is, while it is not the sole test upon which a placer discovery rests, I can believe that it is an element entering into the question of present value. The first tests that I have set down are the tests of special value and exceptional quality, and the further test of commercial quantity. It will therefore be observed that my test of [429] commercial value is not given the first place in my classification, but is rather ranked as one of the factors that bear on

(Deposition of Joseph Jensen.)

the question of present value; as for example, in the question of quantity. If I should locate a deposit of very pure limestone, I will say ten tons, that would be worth \$20.00 but that would cost \$100.00 to recover, I would say that the question of the test of commercial value became an important factor. I should surely expect any deposit alleged to be mineral to be such a one as would justify the simplest practice in the industry in which it was used.

Q. Is there any well defined dividing line between low grade or impure nonmetallic substances which would not constitute a valid discovery, and nonmetallic substances which do constitute a valid discovery?

Mr. REDDING.—May I ask, Mr. Murphy, what you mean by low grade?

Mr. MURPHY.—Impure.

A. To establish such a line is extremely difficult, and it is in such cases that other factors aside from the test of special value and exceptional quality must be given weight. I have illustrated the use of the impure limestone and the pure limestone. Essentially these substances depend on their use, for use in a smelter for flux, upon the presence of calcium carbonate or lime. It would be extremely difficult to arbitrarily set any particular percentage of purity as the lowest limit of purity which would be permissible for using limestone for flux in a smelter. The proper test would be the test of good practice in the smelting industry. I can conceive of a situation where a smelter might be so situated in an inaccessible place as to make necessary the use of an impure

(Deposition of Joseph Jensen.)

limestone that would not be good practice in the smelting industry, even though the smelter was making use of such an impure limestone. [430] If this usage fell outside of the limits of reasonably good practice in the smelting industry, I would not consider it as justifying a placer mining location. This would be because of its commonness since the limestone would owe its value to its presence near the smelter, rather than to anything within itself.

Q. Such a dividing line between pure and impure nonmetallic substances would be therefore, in your opinion, the point between exceptional value and common occurrence?

A. That would be the dividing line I would draw between exceptional value inherent in the deposit and balanced against the commonness of the occurrence. I can illustrate this further, by taking common salt. Practically every desert basin in Nevada contains some common salt and some alkali on the surface. These could be, by some expensive chemical processes, extracted, but not commercially. I would expect a deposit of salt, or of soda, to be outside of this common occurrence and in a special class; that is, to be a rare occurrence which would impress upon the land itself the value.

Q. Coming now to gypsum as a mineral and a commercial product, what are the uses and value of gypsum?

A. Gypsum is used for making the ordinary plaster of Paris, but when put to such use it must be extremely pure. It is used in the making of plate

(Deposition of Joseph Jensen.)

glass and in the making of plaster. In fact, gypsum mills are usually called plaster mills because of the fact that the product which they turn out is used for plastering purposes. Thus, gypsum is used in making the hard white finish for houses, for finishing interior walls of houses. It is also used as a land plaster. Gypsum is further used in the making of Portland cement. In making plate glass, since the gypsum is merely one of the ingredients, the manufacturer must have a pure gypsum, because its final product is going to be the result of [431] mixing several different materials. In the Portland cement industry gypsum is used to act as a retarder. If the klinker produced in a Portland cement mill after the burning of the intimately mixed and fine-ground limestone and shale is pulverized and ground very fine, the powder will almost immediately set when mixed with water. If a small quantity of gypsum is added to the powder, it acts as a retarder so the cement will not set at once, but will set several hours afterwards. It is particularly important in handling cement, for the reason that if the cement began setting as soon as mixed it would be impossible for the workmen to put the cement in the place where it was desired to use it. For example, in making a house of concrete, if the concrete begin to set as soon as the gravel and sand and water and cement were mixed in the mixing machine, it could not be placed in the various forms of the house. If, however, its setting quality is retarded by adding gypsum, the material can be handled in such a way that it is put in the

(Deposition of Joseph Jensen.)

forms and comes to its final resting place before it begins to set. In this way internal stresses are avoided. Now, Portland cement is used largely by the Government, and the Bureau of Standards, in conjunction with the engineering societies of the United States, has defined Portland cement as follows:

“Portland cement” may be defined as the finely pulverized product resulting from the calcination and an incipient fusion of an intimate mixture of properly proportioned argillaceous and calcareous materials, and to which no addition greater than 3% has been made consequent to calcination.”

Just how gypsum acts as a retarder is not definitely known, but experience has established the fact that the presence of sulphuric anhydride, SO_3 , is the element which the chemist must look for as being present. This quantity of SO_3 , varies in the cement practically from 1. to 1.75% SO_3 , but is generally about 1.25. Now, pure gypsum contains 46% SO_3 . To secure about [432] 1% of SO_3 would require 2% of gypsum, 100% pure. Three per cent of gypsum added to the cement would give a little less than 11½% of SO_3 . In selling cement to the Government this test is applied, and the cement maker must therefore respect his specifications and keep within the 3% of material added after the klinker has been made. In order to do so he can only use pure gypsum. If he uses a gypsum of less purity he will have to add more of it, and in this way will depart from

(Deposition of Joseph Jensen.)

the typical standard Portland cement. Good practice in the Portland cement industry, therefore, uses only gypsum having a purity above 85%.

Mr. REDDING.—What does?

WITNESS.—Good practice. Most manufacturers endeavor to secure gypsum having a purity of 90% or better. It may occur that occasional shipments may fall somewhat below their contract specifications. In some cases in case the gypsum deposit is owned by the cement company and freight has been paid on the gypsum, the cement mill will of course use the lower grade material occasionally; but it will endeavor to keep within the lower limit of 85 to 90%. Usage of gypsum containing less than 85% is not the common nor average practice in the cement industry, though here may be isolated cases where there is some departure from this practice, but I would not call them the common practice in this cement industry or good practice.

Q. In connection with your investigation in this matter, did you have occasion to visit the different officials operating cement plants in California, and ascertain what percentage of gypsum was required by them in their contracts to purchase gypsum?

A. I have either interviewed the original producers or have interviewed the cement manufacturers, I would not say for every plant in California, but for many large plants and can speak of the [433] general practice.

Q. Enumerate some of these instances.

A. I visited the plant of the Portland Cement

(Deposition of Joseph Jensen.)

Company, at Cement, California, and interviewed Mr. Montgomery, who stated that—

Mr. REDDING.—I don't want to object to your testimony on the ground of hearsay, but I would say that instead of repeating the conversation you state what facts you ascertained.

A. (Continuing.) I visited the plant of the Portland Pacific Cement Company, and found that they were using gypsum from their quarries in Nevada that ran better than 85% gypsum. As this company owns the quarry it occasionally happens that some of their shipments may fall slightly below this figure, but their average will run above. The Riverside Portland Cement Company, whose plant I visited, has a contract with the Consolidated Pacific Cement Plaster Company of Amboy, requiring the delivery of 92% material. I also visited the property at Amboy, and found that the company was shipping the same grade of material to the cement plant at Colton. This company was discarding as waste a material which contained 65% gypsum. The Consolidated Pacific Cement Plaster Company also manufactures land plaster, a plaster for finishing houses.

I visited the deposit of the Lyons Gypsum Company at King City, Monterey Co., Calif., and found that this company in 1914 was supplying gypsum to the Santa Cruz Portland Cement Company, under a contract calling for a SO_3 content of 39%. This would mean 83% gypsum.

I visited the plant of the Acme Cement-Plaster

(Deposition of Joseph Jensen.)

Company at Los Angeles, and found that this company was using material 88 to 90% pure. My purpose in visiting the plaster mills was to investigate further the purity of material, the purity of the manufactured [434] product sold for making hard finish in houses, and as plaster. The companies only use material or only sell material which is from 88 to 90% or better pure.

In the use of gypsum as a land plaster there is no established practice which permits the same definition and demarcation noted above. Gypsum is added to soil as a land plaster, to loosen a clay soil or to cement a sandy soil, but its practical value is due to the fact that it acts as a stimulation to the bacteria which live at the roots of nitrogen-producing plants, such as alfalfa. For this reason, gypsum is best used on alfalfa fields. If, for example, a farmer desired to put a wagon load of 100% pure gypsum on a field, the same result would be accomplished by using two wagon loads of 50 per cent material. So far as that matter is concerned, he could also use ten loads of 10% material. The only limit to its usage would be the question as to how much waste material he would care to distribute with his gypsum. So far as its effect on the alfalfa is concerned, two wagon loads of 50% material would accomplish the same result as one wagon load of 100% material. Gypsum is also used as a substitute for limestone on soil. In this usage, gypsum is at a distinct disadvantage as compared with limestone. Pure gypsum contains 32% lime. Pure limestone contains 56% lime. One

(Deposition of Joseph Jensen.)

ton of limestone would therefore furnish one and three-quarters as much lime as one ton of gypsum. Gypsum may be used as a substitute in such cases for limestone where the limestone is not accessible, but it would not be good practice for liming soils.

Q. In connection with the use of gypsum as a land plaster in California, did you make any investigation to ascertain how extensive this use was?

A. Yes. I visited the producers and also the purchasers of the material. [435]

Q. What did you ascertain?

A. Also examined the records of production made by the U. S. Geological Survey, as to the production of gypsum. In 1909, according to the U. S. Geological Survey, California—

Mr. REDDING.—What are you reading from?

WITNESS.—I am reading from some notes of the survey, but I have some notes in my hand of my own, and I can read from them. I am now reading from the report of the U. S. Geological Survey on the gypsum industry in 1909. This is the use for land plaster only. “California, Nevada and Oregon, 5,824 tons, value \$19,474.” The one for 1910 is missing, but in my notes I have California alone: 4,960 tons; value, \$14,185. Reading from the reports again:

1911	California alone	7,399 tons	Value	\$18,280.
1912	Do	7,055	“	“ 17,835.
1913	Do	6,209	“	“ 15,700.
1914	Do	5,199	“	“ 14,334.

Mr. REDDING.—This is what?

(Deposition of Joseph Jensen.)

WITNESS.—The use of gypsum as a land plaster in the State of California except for the year 1909, when the Geological Survey included the usages in Oregon and Nevada as well.

Mr. MURPHY.—Q. What did you ascertain in your investigation in the San Joaquin Valley of the use of gypsum for land plaster by the farmers in that vicinity?

A. I found that the use of gypsum was decreasing; that the farmers preferred a gypsum of very high purity in preference to lower grade gypsum, even though the condition was as I have pointed out, that two wagon loads of lower grade material would accomplish the same result as one of the higher grade material. In connection with the various sources of gypsite, I learned that the producers and the farmers were embarrassed because of the fact that the gypsite which was formerly produced in the oil-fields rotted [436] the sacks, so that the oil-field producers who formerly operated could only operate on orders.

Q. What did you ascertain as to the production of gypsum for local consumption in the San Joaquin district?

A. I visited, in October, 1915, the deposits at Coalinga, McKittrick and Taft, and endeavored to learn if any production has been made at the deposits in any of these districts, which, of course, would be the entire west side of the San Joaquin Valley. I found that there was no production at Coalinga, Fellows, Taft and Maricopa. At McKittrick I found that one

(Deposition of Joseph Jensen.)

carload of gypsite had been shipped during the preceding year.

Q. You may state whether or not you ascertained since that time if any of the small gypsum producers in the San Joaquin Valley are still operating?

A. I found no gypsum properties in operation at the time of my visit, and have seen none operating during the three years that I have been working in the oil fields of California, with the exception of the Tulare Oil & Mining Company, which was doing assessment work in a low grade gypsite deposit in the McKittrick district. That is the only case on the west side I have observed during the three years I have been in the oil fields up to the present time. I might state that during my examination in the Lost Hills one trench was made for assessment work, made by the Universal Oil Company on Sec. 18, which is unpatented land and not land involved in this hearing.

Q. What have you to say, Mr. Jensen, as to the relative distribution of gypsum and limestone in the San Joaquin Valley?

A. First as regard to real limestone and real rock gypsum. In the gypsite belt of the San Joaquin Valley there is no limestone and there is no gypsum. There is some gypsite and [437] a great deal of gypsiferous earth; in fact, gypsite and gypsiferous earth are much more widespread than limestone, California as a State, as compared with other States in the west, is particularly deficient as to good deposits of limestone.

(Deposition of Joseph Jensen.)

Q. What bearing has that on the value of gypsite deposits?

A. It only has this bearing in the test which I previously indicated which I apply to mineral discovery on placer claims, that the gypsiferous earth and the superficial gypsite deposits are not rare deposits but that they are common and widespread and impart no special value to the land, since they lack exceptional quality and special value and must needs depend upon their usage in the future, if ever developed, upon their being located close at hand to some industrial community, rather than because of anything in themselves. This gypsiferous earth, say for example, contains 20% gypsum, if near to a farm distant from a railroad would be more readily available to a farmer for uses of land plaster than a 100% product at the railroad. Consequently, I can conceive of his using five loads of gypsiferous earth on his farm as a land plaster rather than sending to the railroad and purchasing 100% material.

Mr. REDDING.—What percentage of gypsum must exist in gypsiferous deposits to receive your stamp of approval as being a placer mineral discovery?

WITNESS.—I should say that, assuming the quantity is there to justify operations on an ordinary commercial scale, a deposit would have to be such that it could produce in the manufactured article a product, 80 to 90% pure for the reason that deposits of less purity are so common and so widespread that they cannot be classified as rare.

(Deposition of Joseph Jensen.)

Mr. REDDING.—Well, do I understand that your definition of a placer deposit is that it has to be rare?

[438]

WITNESS.—Not that it has to be. That is, if it is a deposit of a nonmetallic substance, such as limestone, it must be a deposit which has inherent in it qualities which make it of value.

Mr. REDDING.—It might extend over a hundred square miles.

The WITNESS.—If it contained a hundred square miles and were within an agricultural region and imparted no value and had no value inherent in itself, I would say it would not be a placer discovery. There are recorded beds that extend for long distances through the country which contain sand for making cement or making mortar, and contain deposits of gravel for making cement, constructing houses or road purposes, but I would say that deposits of that character even though having a commercial character, are so common and known not to be rare, and therefore do not justify taking up the land as a mineral placer deposit.

Mr. MURPHY.—Q. In your investigation of the use of gypsum as a land plaster in the San Joaquin Valley, did you ascertain whether or not it had been used by the farmers under an erroneous impression of its effect upon the land?

A. Yes; I found that the farmers of the valley thought that it had a special food value to the plants; but it has no such value, and much of the gypsum which had been used and had been misused because

(Deposition of Joseph Jensen.)

of this false impression. Gypsum of course can be used to neutralize black alkali in the soil, but this practice is not frequently followed in the State owing to the fact that the gypsum must be applied by an expert and a soil analysis must be made in order to apply the particular method of treatment. Some farmers find that it is better to go without and leave the black alkali than attempt to fight it. But, of course, gypsum is such a substance, and, in fact, the only substance which can readily be used to neutralize [439] black alkali in the soil.

Q. In connection with this line of testimony regarding the use of lime and gypsum on California soils, I desire to call judicial attention to a publication by the University of California, College of Agriculture, which is an agricultural experiment station, dated December, 1913, Circular No. III, entitled "The Use of Lime and Gypsum on California Soils," by Chas. B. Lipman; and request that a copy of this circular be attached to the record as Government's Exhibit "B."

(Whereupon it was agreed by stipulation between counsel that this exhibit be omitted from the printed record; that counsel may have the privilege of quoting from the same or reading from it upon the oral argument, the same appearing at length as exhibit "A" to the affidavit of M. C. Seagrave, record page —.) [440]

Mr. REDDING.—I will ask you, Mr. Murphy, what do you mean by "judicial attention."

Mr. MURPHY.—Professional papers of this kind

(Deposition of Joseph Jensen.)

are a subject of judicial attention.

Mr. REDDING.—We have no objection to the introduction of this document for the purpose of illustrating Mr. Jensen's testimony, but we object to the contents of the document as proving the statement of fact therein; as being incompetent for that purpose.

Mr. MURPHY.—Q. Where are the lands involved in this proceeding located?

A. They are located in the Lost Hills, in Kern County, California.

The WITNESS.—(Continuing.) They are approximately twenty-five miles from the railroad. The nearest shipping point in use is Wasco, on the Santa Fe. I endeavored to ascertain whether or not there was any market for gypsum at Wasco. I inquired of residents and merchants there.

Q. What did you ascertain?

A. I found that no gypsum was being used at all. I also made the same inquiry at Bakersfield, and found that the merchants had discontinued selling gypsum since there was no particular demand [441] for it.

Q. In what form or forms did you find gypsum deposited on the lands in question?

A. I found gypsum occurring as a gypsite deposit which I have described as "amorphous" gypsite, for the reason that to the naked eye the fact that it contains crystals of gypsum is not apparent. This deposit is superficial, of variable extent and thickness, it usually has a white color, and can be distinguished

(Deposition of Joseph Jensen.)

by one familiar with gypsum. Then, in addition, there is an earth containing so little gypsum that I can only describe as "gypsiferous" earth; that is, it contains less than 50% gypsum, and is consequently earth and not the gypsite which I have called "amorphous" gypsite. Then there is the occurrence of gypsum crystals occurring as layers and lenses in the earth strongly cemented together and containing earth between the crystals and also enclosed inside the crystals so as to give the crystals sometimes a dirty or earthy or brown color.

Q. I invite your attention to sketch entitled "Concentrated Amorphous Gypsite," marked Government Exhibit "C," and ask if you prepared this sketch. A. I did.

The WITNESS. — (Continuing.) This sketch really represents a summary of the general characteristics of the amorphous gypsite and the earth which occurs beneath it—the earth and other materials which occur beneath it. It is typical of the formation occurring in the Lost Hills on the claims in question.

The upper layer marked "Surface soil" and shaded in green represents the surface soil which usually occurs as a layer overlying the amorphous gypsite. The part colored in light red a little below the surface soil, marked "Amorphous gypsite" represents [442] the white amorphous gypsite which I have previously referred to as occurring throughout the Lost Hills, and throughout the west side of the San Joaquin Valley, and along the flanks of the Diablo

(Deposition of Joseph Jensen.)

and Temblor Ranges. In it there are green patches that represent "inclusions" of practically pure earth or soil found within the amorphous gypsite. The part immediately below the reddish field, marked "Original layer—gypsum crystals and earth—or gypsiferous earth without crystals," represents the amorphous gypsite layer beginning in purity very rapidly so that very often less than a foot below the surface, or a foot and a half below the surface, it cannot be called amorphous gypsite, but is really earth containing some gypsum and is therefore described as "gypsiferous earth." Sometimes amorphous layer is underlain by earth containing gypsum crystals.

The portion of the sketch immediately below entitled "Original layer of earth" represents a layer of earth which is free from gypsum, either as gypsite or gypsum crystals or gypsiferous earth. In my sketch I have illustrated it as being a foot thick, but actually it is often many feet before one again encounters another layer of earth containing gypsum crystals.

The portion of the sketch immediately below the part which I have just described is cross-hatched in red and contains horizontal lines in green. It represents an original layer of earth containing gypsum crystals.

The lowest portion, in green, represents another layer of earth which contains no gypsum or gypsite. These various layers are not uniform layers spread throughout the country, but are local lenses and patches that will thin and thicken from place to place,

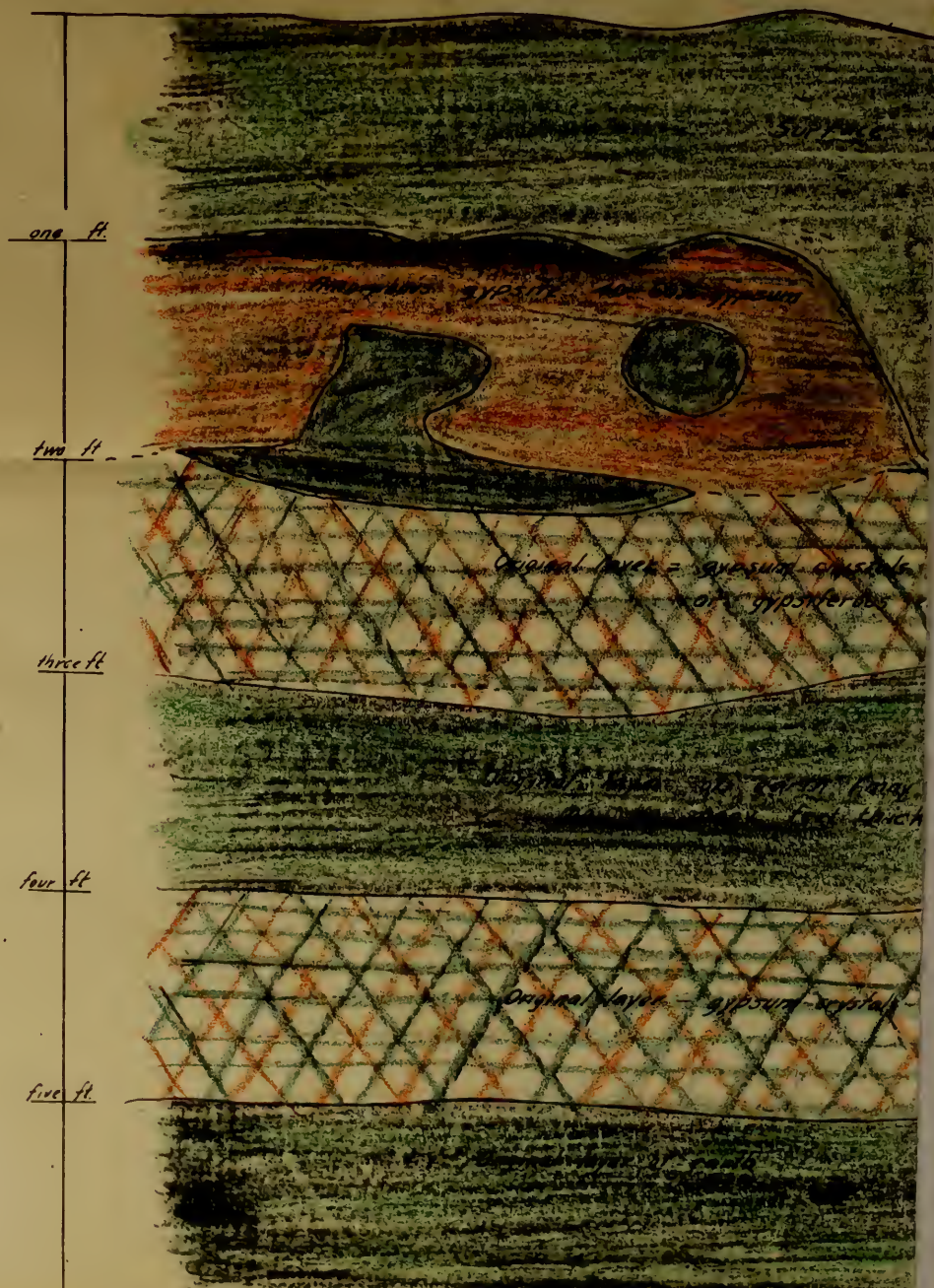
(Deposition of Joseph Jensen.)

that may be replaced by other lenses of like character.

This sketch was prepared to illustrate the manner in which the gypsite and gypsiferous earth and gypsum crystals occur on the [443] claims involved in this proceeding.

Mr. MURPHY.—We now offer in evidence sketch entitled “Concentrated Amorphous Gypsite,” and marked Government’s Exhibit “C.” [444]

SKETCH SHOWING CONCENTRATED



(Deposition of Joseph Jensen.)

Mr. REDDING.—Will you allow me to reserve my objection on that, to put in later? Is that agreeable?

Mr. MURPHY.—That is agreeable.

April 6th, 1916.

The WITNESS.—I desire to make one or two further explanations of my testimony yesterday. With regard to the expression “rare” I do not like this as expressing my idea, but would rather use the words “exceptional quality” as distinguishing from “common occurrence.”

Mr. REDDING.—May I ask a question in the record? Do you consider the phrase “chiefly valuable” as determinative of the quality?

WITNESS.—Not necessarily, for the reason that there may be cases where, as a present value, land is chiefly valuable for grazing but is nevertheless classified, for example, as coal land. To give a concrete illustration, on Cedar Mountain in southern Utah, grazing land is selling for ten to twelve dollars an acre. This is summer range, good only for three months’ use. Cedar Mountain is underlain by a workable coal bed. Economic conditions in this part of the State give absolutely no promise that the land containing coal in inaccessible places and more than a mile distant from the outcrop, and only accessible by shafts 2,000 feet deep or more, will be worked within the present generation. The land has been classified by the Geological Survey as “coal” land, and appraised at ten dollars an acre. As an actual matter of fact, the coal rights under [445] patented lands have been sold for as little as fifty cents

(Deposition of Joseph Jensen.)

an acre, so that here we have a grazing value much in excess of the coal value at the present time. In the same way, a piece of waste land near a small community may be chiefly valuable for gravel and have no value for grazing. I would not consider the fact that the gravel gave the land its chief value the basis for a mineral classification, for the reason that gravel gets its value because of its proximity to the community and not because of any exceptional quality inherent within itself.

With regard to the illustration made of a deposit of exceptional quality covering an area a hundred miles square or a matter of ten thousand square miles as illustrated yesterday, I would first say that if such a widespread occurrence was found in one place it would be reasonable to assume that it was common elsewhere, and that therefore as to the area of ten thousand square miles such occurrence of a pure deposit would not impart a mineral value. I cannot conceive of a practical illustration of this. The nearest type of deposit which I can suggest would be one of ordinary clay, particularly in the eastern States. In the glacial deposits large beds of clay have been laid down over extensive areas. In Ohio, for example, clay from this and other sources is used in making clay products having a value of more than \$20,000,000 per year; but if the clay was fit only for making sewer pipe and ordinary brick, I would say that it did not constitute a practical basis for a mineral classification.

With regard to the use of lower grade gypsum ma-

(Deposition of Joseph Jensen.)

terial at cement plants, I will state that at Riverside the cement company attempted to use gypsite but abandoned the practice. With regard to the use of gypsum as a land plaster, while I have illustrated that any grade of material may be conceded as useful for land plaster purposes, my examination in the fall of 1915 in the San [446] Joaquin Valley disclosed the fact that no land plaster of a purity below 85 to 90% was being offered for sale, with the single exception of the one carload of gypsite from McKitt-rick that I mentioned. The Consolidated Cement-Plaster Company of Amboy formerly endeavored to sell a land plaster containing 65% gypsum, but was compelled to take this off the market because the buyers insisted on handling a higher grade product. This 65% material was a waste product which the Company hoped to utilize, and only needed to sack before selling. It was very uniform in character and of such fine texture that it would immediately act in the soil.

With regard to the use of gypsum as a substitute for lime, at the present time very pure limestone can be purchased in the San Joaquin Valley for less than very pure gypsum, so that limestone now has an advantage of price and a content of one and three-quarters times as much lime as gypsum.

Q. What is "amorphous" gypsite, how does it occur on the lands in question, and how does it differ from gypsum?

A. The expression "amorphous" gypsite is technically in a strict scientific sense an improper usage,

(Deposition of Joseph Jensen.)

but it has become common usage in referring to the superficial surface deposits found in the west side of the San Joaquin Valley. As the deposit occurs in the ground it is very open, so that one cubic foot only weighs 80 pounds or thereabouts. Rock gypsum, on the other hand, weighs 144 pounds to the cubic foot. A ton of gypsite will therefore extend over a larger area than a ton of rock gypsum in their natural condition in the ground, but of course a ton of each type of material will only have the same chemical properties when used for any industrial purpose, such as in cement making or as land plaster. This "amorphous" gypsite is a secondary deposit which has been derived through leaching the gypsiferous earth. This leaching has been done by [447] ordinary rain water, which works into the ground for a few feet during the short rainy season. In this district only about four to six inches of rainfall in each year. The storms are so distributed that the ground is never soaked thoroughly to great depth, but of course is soaked to shallow depths such as three or four feet beneath the surface. Following this rainy season the water is again drawn to the surface because of the intense heat through the summer. While gypsum is relatively insoluble in water, through very, very, very long periods of time this leaching of a gypsiferous earth near the surface will result in the deposition of a small quantity of amorphous gypsite from the waters which have been raised through the heat of the sun. This deposition by capillary action is well illustrated by the ordinary occurrence of al-

(Deposition of Joseph Jensen.)

kali in irrigated districts. After irrigation, when the sun dries the ground an effervescence of alkali will be found on the surface. The deposition of this layer of amorphous gypsite has occurred in the same way. Because of the fact that gypsum is less soluble in water than an ordinary alkali, the water will deposit its gypsum much sooner than it would alkali. Consequently, the amorphous gypsite sometimes is deposited a short distance below the surface rather than at the surface; say, for example, six inches to two feet below the surface. The formation of this amorphous gypsite represents a concentrating action, so that in most cases the amorphous gypsite is richer than gypsiferous earth from which it has been derived. This deposition of amorphous gypsite could only occur therefore in those parts of the hills where a small bed or lens of gypsiferous earth occurs near the surface. The action of the water sinking in the ground and again coming to the surface does not represent a circulation of water to great depths, but represents only a circulation through relatively small depths. In other words, this concentration of gypsite is itself superficial. The fact that [448] the water does not sink to great depths is shown by excavations made during the winter periods. It is also shown by the type of vegetation which flourishes. This vegetation consists entirely of sage brush and fox-tail grass. By the month of May the fox-tail grass has lived its life and is dead. However, the best evidence of the fact that the water does not circulate to great depths to leach gypsiferous

(Deposition of Joseph Jensen.)

earth is shown by test pits that do not show the water sinking to great depths. In addition to this fact, where the original formations have been exposed by digging cellars for oil derricks, layers of gypsiferous earth or layers of gypsum crystals in earth will be found separated by clay beds that would prevent circulation of water. Again, they will be separated by sandy beds that would have encouraged the circulation, but which would also have encouraged the deposition of gypsum between the sand grains. In other words, cellars sunk to depths of 15 to 20 feet give evidence of the fact that the formation there is relatively unaltered by the phenomena which has resulted in the formation of the amorphous gypsite. However, by stating that the original formation is unaffected by the phenomena that has caused the precipitation of the amorphous gypsite, I do not mean that other agencies at the same time may not have so worked as to make some sort of a partial concentration in the beds of gypsiferous earth found at some depth below the surface. Since gypsite is a concentration from the gypsiferous earth below or from the earth containing gypsum crystals, it is clear that it must represent the richest type of deposit to be found. I have failed to explain that the amorphous gypsite is richest at the line of division from the surface soil above, or at its top or in its uppermost portion. From this point as one digs deeper the material becomes less pure. At the top of such a layer the material may be properly called gypsite. [449] At its bottom it is clearly

(Deposition of Joseph Jensen.)

gypsiferous earth. The distance between the top and bottom of such a layer may be as much as $2\frac{1}{2}$ or 3 feet. The point at which one draws the dividing line between the gypsite above and the gypsiferous earth beneath, since there is a gradual change, must be a more or less arbitrary one. In some cases the layer is as thin as an inch or two; in others it may be a foot thick, less often one and a half feet thick, and rarely two feet thick. The remaining portion of the whole layer will be so earthy that examination by visual inspection convinces one that it should be eliminated from material called gypsite.

In some cases the gypsite does not cover gypsiferous earth but covers earth containing gypsum crystals. In those instances the layer may vary from being absent to being as much as a foot to fifteen inches thick. In the lower three inches of the fifteen inches, however, there may be a small zone containing gypsite and gypsum crystals in earth. Below this there will be no amorphous gypsite, but the layer will consist entirely of earth containing gypsum crystals. The amorphous gypsite usually has a hard upper surface, particularly where it has been exposed. In some cases, however, even the amorphous gypsite buried a foot below the surface of the ground has a hard upper surface.

It is impossible to summarize in one statement all of the varying thicknesses that this amorphous gypsite layer has not, even to state its purity except between rather wide limits, as has been done on my sketch already submitted. However, in no case,

(Deposition of Joseph Jensen.)

with but one exception, in the five claims in question, did I find a layer of amorphous gypsite more than eighteen inches thick. From the very definition which I have given, the thickness of this layer of amorphous gypsite becomes a matter of judgment of the person examining the deposit. [450]

The WITNESS.—(Continuing.) If I were to give a very definite definition of “amorphous” gypsite, I would confine it to a layer of redeposited gypsum, usually not more than 6 to 8 inches thick, which has resulted from the leaching of gypsiferous earth or earth containing gypsum crystals, and which has been deposited by surface waters that have been circulated in the gypsiferous material, and then have been drawn to the earth by capillary attraction due to the heat of the sun. This material is of a whitish to creamy color. What I have tried to explain is, that while the top of this layer is absolutely definitely marked by an irregular line—while the top of the layer is definitely marked as to its separation from the surface soil, the bottom of it is not definitely marked because the material decreases in purity with depth. Of course the hydrated calcium sulphate which occurs in this amorphous gypsite is real gypsum and possesses all of the properties of gypsum and can be used for all the purposes for which gypsum is used within the limits that I have previously indicated in my testimony. In a general way, this amorphous gypsite has been formed on higher places, that is, slight elevations, such as gulch banks or points where there is a change in the

(Deposition of Joseph Jensen.)

surface contour. It is never formed in the bottom of deep gulches or ravines, but may be formed on their banks.

This amorphous gypsite can be distinguished from gypsiferous earth: where it is pure enough it can be recognized by its whitish or creamy color; perhaps its color is the best way to describe it. Where it is not pure enough, where it gradually grades into a gypsiferous earth, one must finally draw an arbitrary line. It occurs as a porous substance, not as a solid substance. Its upper surface is never a smooth plane, but always an irregular surface; even more irregular than the surface of the ground, and very often paying no respect to the surface of the ground. [451]

Q. Did you find this amorphous gypsite occurring in a blanket formation beneath the entire surface of these claims or only in spots?

A. Only in spots.

Q. In your explanation of the sketch marked Government's Exhibit "C" you refer to certain "earth balls," and "inclusions." I wish you would explain what they are and how they occur in the amorphous gypsite.

A. I can only state that within the amorphous gypsite layer where it has been examined I have very often found "inclusions" of earth practically devoid of gypsite. Sometimes these "inclusions" have been entirely surrounded by gypsite, and at other times they have been connected with the earth below. It is difficult to suggest any theory as to the

(Deposition of Joseph Jensen.)

manner in which they are formed; the fact is that they are there.

Q. What, if any, effect would such "inclusions" have on mining a layer of amorphous gypsite?

A. Such inclusions would necessarily be mined with the amorphous gypsite; and while they occur frequently they are usually so small that it would be impossible to separate them even by using a pick and shovel. They would necessarily form a part of the mined product, therefore reducing its purity as compared with the amorphous gypsite which surrounds it.

Q. What effect would the uneven upper surface of the layer of amorphous gypsite have on mining operations?

A. If an attempt were made to remove this one foot or less layer of amorphous gypsite, it would be necessary to strip the surface soil from off the gypsite. If the upper surface were a perfectly smooth line or plane it would not be so difficult to scrape the dirt away, but since the surface is warped and irregular any [452] stripping of soil with a scraper would result in removing the high places of the gypsite surface and filling the low places and leaving the low places filled with earth. If the stripping were continued so as to remove all of the earth, it would at the same time remove so much of the principal part of the amorphous gypsite, which is also the richest part, as to materially decrease the product which should be secured in mining the amorphous gypsite itself. This irregular surface would also interfere

(Deposition of Joseph Jensen.)

with the scraper work since it is very hard in many places and would therefore retard the scraper. If an attempt were made to use a plow, the point of the plow would break into the hard surface and naturally tear up and tend to mix gypsite in the soil and soil in the gypsite. In order to completely remove all of the soil it would be almost necessary to remove the gypsum.

The WITNESS.—(Continuing.) There would not be any practical method of taking off that soil except with a scraper; that is, in any large scale of operations it would never pay to hire a man to sweep the dirt off with a broom. All mining of these deposits results in the removal of a certain amount of waste in the mined product.

Q. Referring again to exhibit "C" there appears what is designated as "True vein of gypsum," marked by lines crossing the layer marked "Amorphous gypsite." Please explain what the significance of this feature is.

A. This represents a common occurrence in the gypsite layer. The gypsite in such veins is richer than the material on either side. The vein matter is also much harder. This "True vein of gypsum" is one of the best samples I know of to represent what we call "a vein of segregation." The gypsum has been segregated from the gypsite into this vein and has resulted in forming [453] a true vein separate from the gypsite.

Mr. REDDING.—What do I understand to be the definition of gypsite?

(Deposition of Joseph Jensen.)

WITNESS.—You mean amorphous gypsite?

Mr. REDDING.—Amorphous gypsite?

WITNESS.—No; I was mentioning a true vein of gypsum.

Mr. MURPHY.—Q. Now, you say below the layer of amorphous gypsite is found what has been designated as “Original layer,” composed of either gypsiferous earth containing crystals or gypsiferous earth without crystals. What is the average thickness of such beds?

A. In some cases I have found a bed of that character as much as a foot and a half to two and one half feet thick, but it was not of uniform character.

The WITNESS.—(Continuing.) Generally speaking, that layer is about one and a half feet thick. It merely represents a bed which has not been changed by this leaching process. These crystals occur scattered through the earth and interlocking with each other sometimes so as to form a very tough mass. Generally speaking, the crystals are about the size of a bean or smaller.

Mr. REDDING.—You are speaking now of gypsum crystals?

WITNESS.—Of course crystals in the earth, but occasionally fragments of crystals as much as an inch and a half long have been found. But such crystals are rare—such fragments are rare specimen fragments rather than typical of the entire mass. Then again these crystals may interlock into each other so as not to be distinguished.

Q. Generally speaking, what per cent. of such a

(Deposition of Joseph Jensen.)

bed is composed of crystals and what per cent earth?

A. For the most part, such beds are more than 50% earth and less than 50% crystals, although there may be exceptions. The [454] crystals in the earth may amount possibly to 60%, but generally speaking, the crystals constitute less than 50% of the entire mass.

Q. Would it be practical to separate these gypsum crystals from the earth or put such material through a common process of refinement whereby the gypsum could be made marketable?

A. It would not be practicable or economical. There are a large number of factors which would prevent such an attempt.

Q. Do you know of any process of refining such crystals?

A. There is a plant which handles material carrying gypsum crystals, located at Amboy, but the deposits on the land in question have absolutely no right to be compared to the deposit at Amboy as a source of raw material. The deposit at Amboy is one that has formed in a recent lake, which is now dry. There is practically no surface hardly of soil. The bed is so thick that it forms a working face of 6 to 10 feet. The lower working limit is not determined by the purity of the product, but by moisture which occurs beneath the surface at 10 to 12 feet. An average sample of the material occurring in this six to ten-foot layer at Amboy would carry about 90% gypsum. In fact, the material could be mined and crushed fine without any further treatment.

(Deposition of Joseph Jensen.)

The individual grains are usually independent of each other, or at least are not so strongly cemented together that any particular amount of crushing is necessary to make them spring apart or separate.

The material at Amboy after being crushed in the coarse crusher, is passed through a drier, and then as it falls over riffles through a considerable distance it is subject to an air suction which is strong enough to suck away the fine material from the falling crystals. After this treatment the crystals must be ground in bur mills before the product can be used for land plaster. If it is to be used for wall plaster it must be calcined. The waste material produced [455] at this mill carries 65% gypsum; hence, the waste material thrown away at this mill is richer than the earth with gypsum crystals which could be secured on any of the claims involved in this proceeding. Considering any individual crystals, the crystals at Amboy are pure gypsum. The crystals found in the earth in the Lost Hills contain so much earth as to give them a brown color. This earth is locked within the crystal itself, and absolutely no method of refining can remove it. The beds in the Lost Hills are so thin that the cost of mining would be from three to four times as much as at Amboy.

The plant at Amboy has cost approximately \$150,000.00 and represents several years of experimental operation, during which time the deposit did not pay. Even at the present time success of operations depends on handling large tonnages at a small margin of profit. If the feed of the mill were decreased

(Deposition of Joseph Jensen.)

in purity by one-half, such as would result by using material from the Lost Hills, the result would be that a less amount of gypsum would be secured and that the operating costs would be more than doubled. I say more than doubled for the reason that in the Amboy deposit the earth occurring with the crystals is merely a fine dust between the grains which separates out and can be blown out or sucked out of the falling current. In the Lost Hills there is so much earth and it is of such a granular character that when first crushed it would break into grains the same size as the gypsum crystals. Consequently, somewhere in the process of refining the product would consist of fragments of earth and crystals of gypsum of the same size and of equal weight, so that no separation by means of an air current would be practicable.

One other important factor to consider is, that while the crystals at Amboy are only loosely locked together so that a slight pressure will release them from each other, the crystals at the [456] Lost Hills are tightly locked together and interlocking, so that any attempt to crush them to release the earth by the methods employed at Amboy would be impossible. In the next place the erection of a mill costing \$150,000 must be predicated upon a deposit containing a large quantity of material. There is no such quantity of material available in the Lost Hills in the claims in question. Such a mill to operate successfully must have a uniform feed within reasonable working limits. The deposits in the Lost

(Deposition of Joseph Jensen.)

Hills cannot, under any conditions, furnish a uniform feed.

The point to consider in this problem of concentration, however, is that at Amboy material more than 90% is being refined. In the Lost Hills if an attempt were made to use the same methods, the material supplied to the mill would not run 50% gypsum. The result of this would be that the operating costs of the mill would be much more than doubled. In addition to this fact the Lost Hills material would increase the cost of mining from three to four times that of Amboy. In a plant which has only demonstrated its practicability after three or four years of experimenting, it is clear that such process could not be applied to material of such different gypsum content.

Q. In your opinion, it would not therefore be practical to attempt to mine the deposits of gypsiferous earth either containing crystals or without crystals found on the lands in question?

A. Did you mean mining or concentrating?

Mr. MURPHY.—We are only dealing with the layer of gypsiferous earth which occurs below the amorphous gypsite.

A. The deposits of gypsiferous earth are absolutely without merit, and could not be considered at all. The layers which contain crystals in the earth—containing gypsum crystals in the earth—cannot be used. With regard to the layer of earth containing [457] gypsum crystals, it would not be practical to attempt any form of mining or concentration to im-

(Deposition of Joseph Jensen.)

prove the purity of the material.

Q. In your opinion, would it be practical to mine the deposits of amorphous gypsite found on this land as distinct from the gypsiferous earth with or without crystals?

A. It most assuredly would not be economical at present.

Q. Why not?

A. Because the amorphous gypsite is too poor in quality to warrant its being used for any purpose, according to standard practices at present.

The WITNESS.—(Continuing.) It would not be practical to mine the combined layers of amorphous gypsite and gypsiferous earth containing crystals or without crystals. If an attempt were made to mine the two together, it would result in even more confusion, because the earth with crystals would decrease the purity of the amorphous gypsite. If an attempt were made to treat in a concentrating mill the combined product, the amorphous gypsite would interfere with the successful operation of the concentrating mill.

Q. To what depths do these alternate beds of gypsiferous earth with or without crystals extend upon any of the claims?

A. A person's observations on the claims are limited to the deepest workings. In my examination I found no cellar that was more than 15 to 20 feet deep. In some of these there were no such alternating layers. In others, part of the shaft would contain alternating layers and the balance

(Deposition of Joseph Jensen.)

would consist entirely of earth. Based, however, on the general geology of the Etchegoin formation, it is reasonable to assume that this condition would be found at greater depth than 15 or 20 feet, but my observations were limited to the beds exposed by workings. I would state, however, that there is nothing which was found in the cellars or shafts that warrants the hope or assumption that the material will improve in quality with [458] depth. There is also nothing connected with the general geology of the Etchegoin formation that would justify such a hope.

The WITNESS.—(Continuing.) The amorphous gypsite is always richer than the gypsiferous earth below. I made tabulations as a result of analyses showing the comparison in purity of the amorphous layer and the gypsiferous earth below. I have these tabulations here, but I can read from my original notes. I will read this from my original notes and then I will give the tabulation and the amounts, if that is satisfactory.

On the NE. $\frac{1}{4}$ of the NE. $\frac{1}{4}$ of the NW. $\frac{1}{4}$ of 32, there is an 8-inch layer of amorphous gypsite which contains 61.12% of gypsum. The gypsiferous earth below was 6 inches thick and contained 51.45% gypsum.

On the NW. $\frac{1}{4}$ of SE. $\frac{1}{4}$ of 30, the amorphous gypsite layer is 6 inches thick and contains 58.67% gypsum. The gypsiferous earth below was a foot thick and contained 38.37% gypsum.

In making my comparison of the Lost Hills crys-

(Deposition of Joseph Jensen.)

tals and earth with the Amboy deposit, at some points in the Lost Hills the crystals are not found interlocking but are found loose in the earth. In these cases, however, the material contains nearer 40% gypsum than the figure which I gave above. The practical result would be the same, for there would be so much earth mixed with them that no plant similar to the one at Amboy could refine the material, and again, as noted above, quantity of this type of deposit has not been proven to exist so as to warrant such an expensive installation.

My examination of the land in question in order to determine their value for gypsum deposits was made by carefully inspecting the deposit and studying its character, and then by carefully sampling a large number of exposures. I will state that I made a survey of the land and located the gypsum improvements that I found, and also located the various of oil wells. This survey was made for the purpose of subdividing the land into ten-acre [459] tracts, so as to definitely locate the various improvements. In some cases I found that oil derricks were very near the dividing lines between the ten-acre lots. In such cases, in order to confirm my determinations, I repeated the work as much as three or four times. I examined all the natural exposures and all developed exposures. I secured samples which were afterwards analysed from various exposures.

Q. What method did you employ in sampling or selecting samples?

(Deposition of Joseph Jensen.)

A. In some cases a large number of trenches had been made from 1 to 2 feet deep through the surface soil and amorphous gypsite layer. These trenches were usually in groups so that the deposit was well exposed. I would dig back from the side of the trench a short distance in order to assure securing a new surface of material, and then from the thickness which I considered represented the amorphous gypsite at that point I would take a shovel or a few shovels full of material. I would then go to the next cut and repeat this operation, measuring thickness of surface soil, the thickness of amorphous deposit, and the thickness of the bed which I sampled.

In one exposure of gypsite it would sometimes happen that there were 8 to 10 trenches. I would make from two to three cuts in each trench. Finally, I would assemble the material from each of these cuts in one large general sample. This large general sample might be as much as 100 or 150 pounds. It was thoroughly mixed on a large canvas and the large lumps were reduced. When thus mixed it was divided into four parts and the two opposite quarters were thrown away, while the two remaining quarters remained. The material was then pulverized again to break up any large lumps, and this process of quartering or subdividing was continued until [460] I made a sample large enough to submit to a chemist. By the time this subdivision had been completed the material was reduced to a powder. This is the standard method of accurately sampling.

The WITNESS. — (Continuing.) My sample

(Deposition of Joseph Jensen.)

would represent an average of the material which had been developed at that particular point. I was extremely careful in all places to avoid including any surface or any soil above the gypsite layer. I would usually shovel off or scrape back the surface soil, so as to avoid a particle falling into the material which I took for my sample. In the same way, I was equally careful not to take my sample so as to include any part of the earth "inclusion." My sample would therefore actually be better than the average of the layer as it existed in the ground, for the reason that I did not include the earth "inclusions," since they are irregular through the deposit. On the other hand, if I encountered one of these "true veins of gypsum," I did include a portion of it in the sample.

Q. In taking samples of amorphous gypsite, did you cut across faces of the exposed portion of the amorphous gypsite, or did you also include the gypsiferous earth below?

A. I sometimes found it necessary in order to make sure that I had secured all the amorphous gypsite, to extend my cut beneath the bottom of the trench. As I have previously explained, there is no sharp dividing line between the amorphous gypsite and the gypsiferous earth. It must be more or less arbitrarily established. I did endeavor to limit my sample to the best material. In the same way, in case my cuts showed nothing but earth, I did not include them in the sample.

The WITNESS.—(Continuing.) I took what I

(Deposition of Joseph Jensen.)

considered was the amorphous gypsite and was very careful to avoid contaminating it. [461]

Q. In an attempt to mine amorphous gypsite from the lands in question, would the material excavated and secured in mining be as pure as your sample?

A. No; that would be impossible.

The WITNESS.—(Continuing.) I have already explained that the upper surface is an irregular surface, and that any attempt to clear the surface soil from off the amorphous gypsite layer would not be wholly successful since the depressions would still contain soil. If we attempt that, working with a plow and scraper, it would be possible to remove all the soil off the amorphous gypsite except a thin veneer, say three-fourths of an inch thick, and that in reaching the lower limit of the amorphous gypsite it would be possible to mine it and not take more than three-fourths of the gypsiferous earth below, it will be seen that mining out a one-foot layer of amorphous gypsite, three-fourths of an inch of soil from above, and three-fourths of an inch of gypsiferous earth from below, will have been included. Hence, to our 12 inches of amorphous gypsite we have added $1\frac{1}{2}$ inches of waste, $\frac{3}{4}$ inch of soil above and $\frac{3}{4}$ inch of amorphous gypsite below. This would mean that from one-eighth to one-tenth of waste had been added to the amorphous gypsite. If this type of mining were to be practiced, in order to estimate the product which would be mined, based on the samples I have taken, it would be necessary to deduct something more than one-eighth

(Deposition of Joseph Jensen.)

of the percentage of purity which I report; that is, the mined product would contain from 10 to 20% waste. This method of mining, by means of plow and scraper, would be the only near economic method that could be attempted. It would be impossible to attempt to mine this material with a pick and shovel. In the case of pick and shovel it would be possible to avoid including so much waste, but, nevertheless, any product mined even with pick [462] and shovel, would contain some waste, and would consequently be less pure than the samples which I took.

Q. For purposes of illustration, have you prepared a map or sketch showing your method of sampling gypsite and gypsiferous earth on the lands in question? A. I have.

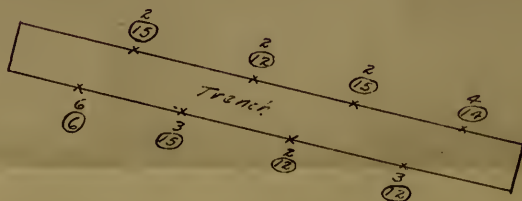
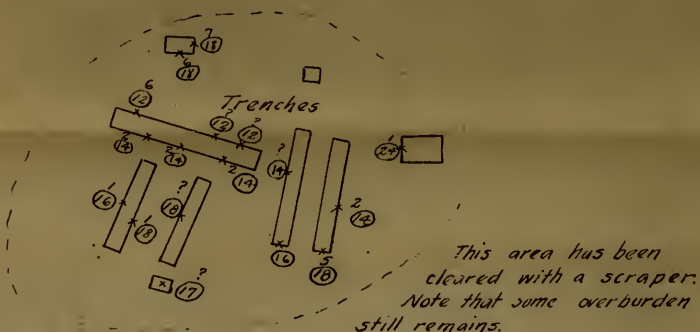
Q. I hand you map marked Government's Exhibit "D," entitled "Map showing method of sampling gypsite and gypsiferous earth as sampled at "g" on the NW. $\frac{1}{4}$, NW. $\frac{1}{4}$, SE. $\frac{1}{4}$, Sec. 30, T. 26 S., R. 21 E.," and ask you if this is the map which you prepared? A. Yes, sir.

Mr. MURPHY.—The Government offers in evidence map marked Government Exhibit "D."

(Government's Exhibit "D" is in words and figures following:) [463]

MAP SHOWING METHOD OF SAMPLING
GYPSITE AND GYPSIFEROUS EARTH
AS SAMPLED AT "g" ON THE
NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ SEC 30, T26S-R21E.

Scale one inch = 50 feet



- x Point where cut was made by digging back about one foot.
- 2 Soil overburden in cut. This was carefully excluded from sample.
- (14) Thickness of layer sampled, consisting of amorphous gypsite above and gypsiferous earth or earthy gypsum beneath. Earth inclusions in the gypsite were not included in the sample, but in any method of mining the overburden of soil and such earth inclusions could not be excluded or separated from the mined product, as has been done in sampling. At least 10 to 15% of soil from above and earth from below would be included in the product as mined, hence all percentages of my samples taken by this method must be reduced about one tenth to estimate the purity of any mined product. Thus sample "g" contained 58.59% gypsum but any gypsite mined here would only average about 50 to 53% gypsum.

No-A-37-Eq US-vs Drums Drum Co. -

" A-52-4 " " " Lost Hills Mfg Co. & Co.

" A-57- " " " " " " " " " " " "

Pliffs - Exhibit "D"

Filed Aug 22 - 1916

Wm W. Van Dyke Clerk

By JJ Gern Deputy Clerk

(Deposition of Joseph Jensen.)

The WITNESS.—(Continuing.) This map shows the true relative position of the various trenches which occur at the point “g” on the map, which I made of the S. E. quarter of Sec. 30. The X’s marked in the side of the trenches represent the points at which I made my sample cut. Near each one of these X’s there are two figures, the one being enclosed in a circle and the other being above the circled. These figures are always in “inches.” Thus, for example, the figure 2 above the circle represents the soil overburden in the cut. This was carefully excluded from my sample. The figure in the circle is also in “inches,” and represents the thickness of the layer sampled, consisting of amorphous gypsite above and gypsiferous earth and earthy gypsum below. “Earth inclusions” in the gypsite I excluded in the sample, but in my method of mining the overburden of soil and such earth inclusions could not be excluded or separated from the mined product as has been done in sampling. At least 10 to 15% of soil from above and earth from below would be included in the product as mined. Hence, all [464] percentages of my samples taken by this method must be reduced about one-tenth to estimate the purity of any mined product. Thus, sample “g” contained 58.59% gypsum, but any gypsite mined here would only average about 50 to 53% gypsum.

I will further explain that on this sketch I have said that the figure in the circle included the amorphous gypsite above and gypsiferous earth or earthy

(Deposition of Joseph Jensen.)

gypsum beneath. I so placed this on the sketch for the reason that the question of what would be amorphous gypsite as distinguished from gypsiferous earth might vary between two observers. Thus, for example, where I have indicated a thickness of 18 inches of amorphous gypsite, another observer might say there were 12 inches of amorphous gypsite and 6 inches of gypsiferous soil. In my sample I aimed to take from each cut material that would represent an average of the whole. By decreasing the thickness of the sample a slightly higher percentage could have been shown in it. Conversely, if the thickness of the layer had been increased the purity of the sample would have been reduced. The various figures in the circles show how the thickness of the particular sample varies from place to place, even in the same exposure. The trenches within the dotted line on exhibit "D" were sampled, and also the large trench shown outside of the dotted line. This material all constituted sample "g." The dotted line represents roughly an area that had been cleared with a scraper but upon which a slight overburden still remained.

Mr. HAMEL.—This particular sample, then, represents material taken from how many different points?

A. Twenty-five.

Mr. MURPHY.—Does this sketch show the manner or method employed in securing all of the samples which you have secured from the lands? [465]

A. It does of all samples of amorphous gypsite.

(Deposition of Joseph Jensen.)

Q. I desire to take up now, in detail, your examination and classification of the various legal subdivisions of the lands involved in these cases, beginning with the SE. $\frac{1}{4}$ of Sec. 30. I will ask you to start in with the ten-acre subdivision embraced in the NE. $\frac{1}{4}$ of the NE. $\frac{1}{4}$ of the SE. $\frac{1}{4}$ Sec. 30, and state in detail what you found there, and what classification you made of this subdivision? Before making your answer to this question, I desire to offer in evidence plat of the SE. $\frac{1}{4}$ of Sec. 30, marked Government's Exhibit "E," which purports to show the extent of the exposures of gypsum on this tract (passes plat to Mr. Redding).




(Government's Exhibit "E" is in words and figures following:) [466]

p 568114

SE 1/4 SEC 30, T26S-R21E.



Scale 1 inch = 660 feet.

-  No gypsum exposed
 Natural exposure of gypsum
 Gypsum developed by assessment work or otherwise.

2.4.9 Oil wells of Universal Oil Co.

a, b, c' Points where gypsum was noted.

No-A-37-Ey 2 S vs Devil Wren Counsel Oil &
" A-52 " " " Lost Hill Mfg. Co Etal
" A-57- " " " " " " " " " Etal

Peffer's Exhibit "E"

Filed Aug 22 - 1916

VISALIA 03432
Case 3838

Wm W Van Dyke Clerk - Rq J. J. Green Deputy

J.V. 12/4/14

(Deposition of Joseph Jensen.)

Mr. MURPHY.—Who prepared this map, Mr. Jensen, exhibit “E”?

A. I prepared the map.

Q. What does it represent?

A. While I was in the field I made a survey of this quarter-section, and also prepared the map, which was completed in the field and on the ground. Upon my return to San Francisco I made a tracing of this map; then caused a blue-line print to be made, and covered this blue-line print in the same way that I colored my map made in the field. Consequently, the map offered in evidence as exhibit “E” is an exact duplicate of the one which I made in the field, and I have compared the two.

Mr. MURPHY.—I might state that this map is offered for the purpose of illustrating Mr. Jensen’s testimony with respect to the character and extent of deposits found by him on this tract.

WITNESS.—I would also like to explain about the map that the lines shown therefor the ten-acre tracts are very accurate, and that the location of the improvements, such as the wells and trenches, are accurate. [467]

Mr. REDDING.—What does this line running northwest form?

WITNESS.—That is an oiled road. It heads off after you leave the gulch.

Mr. MURPHY.—You may proceed with your statement as to what you found on the NE. of the NE. of the SE. of 30.

A. Let me explain in a general way about the

(Deposition of Joseph Jensen.)

claim that its southwest corner reaches out on a flat which is a part of the San Joaquin Valley. Its northeast corner extends to near the crest of the Lost Hills. The difference in elevation would not be extremely great. To an ordinary person not familiar with surveying, it would hardly be appreciable, but I dare say there might be a difference of elevation of 100 feet between the highest and lowest points on the claim. As I have indicated on the map, the south half of the quarter section is traversed by a gulch flowing eastward, which has resulted from the joining of two lesser gulches that end in the valley by the west. In the S. $\frac{1}{2}$ of the NE. $\frac{1}{4}$ there is an open flat that can hardly be called a gulch in which the drainage is only slightly to the east. North of this flat there is a sort of a bench which runs transverse to the Lost Hills, and the Lost Hills running in a northwesterly direction. This bench finally merges to the west into the valley floor.

Now, as to the NE. NE. SE. Sec. 30, I found oil wells as indicated on the map, and a single exposure of gypsite at the point "d." This is a single exposure occurring in a road which crosses the front of this bench. It had no extent but was merely represented by a slight whitening in the road. The overburden at this point appeared to be very thick, and because of this thickness one cannot hope for a pure or uniform deposit of gypsite beneath. In March, 1916, I returned to this particular ten-acre tract and endeavored to relocate the showing at d',

(Deposition of Joseph Jensen.)

but found nothing except [468] a few clods of gypsite. The showing must have been worn out of the road or else lacked extent entirely. Owing to the fact that there were so many oil wells on this ten-acre tract. I made a very careful survey to see if there were any fresh exposures of gypsite or gypsum-bearing material, but found none.

Q. If there had been any beds of gypsum or gypsiferous earth on this tract, were the conditions such that there would have been some showing or something to detect the presence of a bed of gypsum?

A. I would have expected to find some evidence at the various oil derricks, for the reason that cellars or excavations were made and considerable material was removed from them. In addition to this fact, trenches have been made for pipe-lines connecting the various wells. These pipe-lines in any parts of Sec. 30 are buried deep enough so that the trenches made for them extend into the amorphous gypsite layer when present.

Q. You saw no indication of the presence of gypsum except as exposed at d' on this subdivision?

A. That is correct.

Q. What classification did you give this subdivision?

A. I classified it as nongypsum. Since the time of my field examination a well has been drilled in the southwest corner of this ten-acre tract, and it is known as "Universal No. 12." I will indicate it roughly on the map.

Q. What did you find and how do you classify the

(Deposition of Joseph Jensen.)

NW. $\frac{1}{4}$, NE. $\frac{1}{4}$ SE. $\frac{1}{4}$ Sec. 30?

A. Evidence of gypsum was found at e' and "f." The showing at e' is below the bench which I have heretofore described. Here there is a cellar possibly 20 feet deep. It shows a 6-inch over-burden of soil, then a layer about a foot thick of amorphous [469] gypsite having "earth inclusions." Beneath this is a two-foot crystalline earthy mass, and on down in the cellar the earth sets hard because of the presence of gypsum. What I mean by this expression is, that the gypsum in the earth gives up a certain coherence. In an ordinary shaft exposed to the weather for a long time the earth tends to spawl off, so that the walls of the shaft lose their original regular shape. A small percentage of gypsum present in the earth causes the material to adhere together so that the walls of the cellar remain much as they were at the time the cellar was made.

April 7, 1916.

WITNESS.—(Continuing.) The presence of gypsum in the earth is often very misleading in old exposures. This is due to the fact that the earth grains between the interlocking gypsum crystals tend to fall out when exposed to the air; hence, even in a deep cellar like this, the exposure on an old face or side is not a true indicator of normal conditions. Therefore, unless a person is warned of this feature or takes the precaution to cut away the old face in order to make a sure exposure, he will be misled into thinking that there is much more gypsum present than there actually is. Now, the foregoing explana-

(Deposition of Joseph Jensen.)

tion applies to shafts and cellars of considerable depth when what I have termed "original layers of gypsiferous earth and earth with gypsum crystals" are exposed.

Q. Do I understand you to state that after gypsiferous earth has been exposed to the weather a secondary precipitation takes place?

A. My explanation has not reached that point. I was just going to take that up and I wish to separate that from what I have heretofore described. The showing which I have just described is not [470] a condition due to enrichment, but a condition due to the fact that the earth falls away and leaves the interlocking gypsum mass behind.

Now, as to the feature which you brought out in your question, the amorphous gypsite layer is subject to enrichment in the sides of trenches. I have heretofore explained and illustrated in my sketch that there are true veins of gypsum occurring in the amorphous gypsite. These veins have been formed by the segregation of mineral from out of the amorphous gypsite. When the amorphous gypsite layer becomes moistened with rain water, this water will migrate by capillary action to the driest place. If the face of a trench is exposed to the sun and the surface ground is covered with a mantle of soil or grass, the moisture down in the amorphous gypsite layer will work to the face of the trench rather than to the surface of the ground. Such moisture will bring with it a certain gypsum content. Even in a period as little as two or three years, this sort of ac-

(Deposition of Joseph Jensen.)

tion produces a marked enrichment of the faces of the trenches. In fact, I observed in cuts I made a year and a half ago an enrichment of this character. But this enrichment is very superficial, and it seldom extends back from the face of the trench for more than a foot. Consequently, this very recent enrichment also tends to create a very misleading impression to the person who makes a very casual inspection of the trench, and who does not take the precaution to dig into the original amorphous layer of gypsite behind this local enrichment. This enrichment may well be described as a veneer, since it is so fine and only occurs on the faces of the trenches. This same explanation also shows why it is that the upper inch or two of the layer of amorphous gypsite is always richest. Therefore, the two misleading situations occur where gypsum is present; the one where the earth falls away from the gypsum crystals, as in cellars, leaving a much richer [471] exposure, and the second type, where the thin veneer forms on the faces or the sides of the trenches.

Now, with regard to this shaft at e', I made a hole about three feet away from the edge of the cellar and then connected it with the cellar. In this way I was able to make a much better inspection of the layer of amorphous gypsite. I observed that only the top few inches are pure. Below this the mass grades to earth, and before a thickness of one foot is passed the whole layer is earth with gypsum stringers.

The showing at "f" upon the simplest inspection proved to be so much better than the one at e' that

(Deposition of Joseph Jensen.)

I took no sample at this shaft. At "f" no trenches have been dug. The soil has been scraped from off two parallel belts to either side and heaped in a long row between them. Each of these long strips is 15 feet wide and the space between is from 15 to 20 feet. Since the overburden had been removed it was impossible to measure its thickness accurately, but I estimated that it was from 6 to 8 inches thick, and at the west end of this work it is fully one foot thick. These long strips are 210 feet long. The layer of amorphous gypsite had thicknesses of 2 inches, 3 inches, 6 inches, 4 inches, 10 inches, 4 inches and 3 inches at cuts which are distributed regularly through the area. This thin layer was almost too thin to be considered for any purpose, and I therefore made my sample across a 1-foot layer of material. This 1-foot layer of material in the lower portion consisted of crystals in earth. The sample contained 56.22% gypsum; but mining, of course, would not secure a product as rich as this, and some deduction must be made if an attempt is made to estimate the purity of any product which might be mined at "f."

On this ten-acre lot there is, or rather was, "well Universal No. 8," on Section 30. Owing to water troubles the well [472] was being plugged in October, 1914. The dump of the cellar showed some slight traces of gypsum, but they were very unimportant and would only represent a low-grade gypsiferous earth. No evidence of the extent of the material at "8" was at hand. These were the only two exposures on this ten-acre lot. Based upon the very impure

(Deposition of Joseph Jensen.)

character of the material at "f," which was the best on the ten-acre tract, I am of the opinion that a non-gypsum classification is proper.

Mr. REDDING.—Let me ask you, Mr. Murphy; you are putting this witness on for the purpose of not only stating what he found, but also to give his opinion?

Mr. MURPHY.—Yes; to show what classification he made at the time, and in his opinion as to whether or not the showing is of sufficient extent or importance to distinguish the lot as having exceptional quality or special value for gypsum.

Mr. REDDING.—We would object to the opinion of the witness as being incompetent, irrelevant and immaterial.

Mr. MURPHY.—We will now take up the NE. $\frac{1}{4}$ of the NW. $\frac{1}{4}$ of the SE. $\frac{1}{4}$ of Sec. 30, and describe this tract in the same manner.

A. I made a careful examination of this ten-acre tract, and found no evidence whatsoever of any natural exposure of gypsum, and also failed to find any work which had been done for the purpose of finding or attempting to find a deposit of gypsiferous material.

Q. What would be your classification of this tract?

A. I would classify it as not valuable for gypsum.

Q. You may now take up NW. $\frac{1}{4}$, NW. $\frac{1}{4}$, SE. $\frac{1}{4}$ of Sec. 30.

A. Gypsum-bearing material was observed in the northwest corner of this ten acres at the point "g." Government's Exhibit "D" is a map of this particu-

(Deposition of Joseph Jensen.)

lar exposure and shows in detail my method of sampling throughout the examination, and [473] specifically illustrates the occurrence at "g." The average thickness of material sampled here at point "g" was 15 inches. I would explain what the map does not explain, that in some parts of the trenches no gypsum-bearing material is exposed. I did not make sample cuts in such parts of the trenches, for the reason that it might be contended that such parts of the trenches would not be mined for gypsite, and could therefore not be considered as tending to reduce the purity of material. Of course it must be recognized that any attempt at mining would have to handle such material either as waste or as the mined product. This sample "g" contains 58.59% gypsum; but any gypsite mined here would only average 50.53% gypsum. The map exhibit "D" calls attention to the fact that the area in which most of the trenches are located has already been partially cleared with a scraper, but some overburden still remains. Such quality of material does not justify any use under present ordinary practice.

Mr. MURPHY.—The map marked Government's Exhibit "D" which has already been introduced for the purpose of showing your method of sampling, also shows the character of the exposures at point "g" on exhibit "E," the tract which you have just described?

A. Yes, sir; that is correct.

Q. You will next take up S. $\frac{1}{2}$ of the NW. $\frac{1}{4}$ of the SE. $\frac{1}{4}$ of Sec. 30.

(Deposition of Joseph Jensen.)

A. This 20 acres hardly covers any part of the Lost Hills, but is more a part of the flat to the west of them. At g' there is a hole or cut made along the pipe-line of the Associated Oil Company. This cut was filled with oil and left an oil-mark which I first mistook for some evidence of gypsite. On digging into this material two feet I found nothing but sandy soil. It was not proper to expect to find gypsite here, but I took this precaution [474] to make sure than none was present.

The oiled road, which is shown by the parallel line crossing the southwest part of this 20 acres, has been crowned in the center, and a cut has been made from 6 to 12 inches deep. At no point on this 20 acres along the road did I find any evidence of gypsum-bearing material. I made careful search over the entire 20 acres, and found absolutely no evidence of gypsum-bearing material, and therefore make a non-gypsum classification of the entire 20 acres.

Q. The SW. $\frac{1}{4}$ of the NE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Sec. 30?

A. On a little rise in the south half of the ten-acre lot, gypsum-bearing material has been developed at "e." This exposure covers a triangular area having a base of 55 and an altitude of 250 feet. In it some five trenches have been made. The triangular area has been pretty well cleared of earth so that the entire extent of the occurrence is indicated, and no evidence is suggested or was found that would indicate that there was any more gypsum-bearing material on the ten acres than that exposed at "e." The

(Deposition of Joseph Jensen.)

amorphous layer varied in thickness from 1 to 2 inches to 12 inches, but for the most part this was hardly 6 inches thick. Below this the earth contained gypsum crystals. My sample was taken so as to represent a one-foot layer. It therefore contained all of the amorphous gypsite and some gypsum crystals in earth. Fourteen (14) cuts were made to secure this sample, and when first taken it weighed about 100 pounds. It was reduced by the method which I have heretofore described. The sample contained 55.36% gypsum, but mining would considerably reduce this percentage.

Mr. REDDING.—That is your opinion?

WITNESS.—Yes, sir; that is my opinion. A strong objection to this exposure is that the original overburden was from 1 to 1½ feet thick. Another objection is the presence of a great deal of gravel in the top and richest layer of amorphous gypsite. The [475] earth containing the gypsum crystals below this one foot decreased in purity so rapidly, that had it been included in the sample so as to make the sample thicker, there would have been a considerable reduction in the purity of my sample. I have therefore made a nongypsum classification of this ten-acre lot, since the material lacks any exceptional quality and has no special value.

Q. What effect would the presence of gravel in the amorphous gypsite have on the product as commercial fertilizer?

A. It is clear that no farmer would care to introduce gravel in his soil, which was free from gravel,

(Deposition of Joseph Jensen.)

and it would in no way benefit the soil.

Q. In your examinations of the entire area embraced in these claims, did you find the presence of gravel of common or rare occurrence?

A. In a general way, all of the amorphous gypsite contains some sand and gravel usually finely scattered through the one-foot layer. This varies from fine sand grains to gravel the size of a pea, and in some cases as large as a walnut.

A. (Continuing.) I would further call attention to the fact that these five trenches that have been made in the material exposed by using a scraper have been more than a foot deep. Consequently, in excavating the material and throwing it all on a common dump, all of the excavated material has become so mixed that no separation would be possible in the future. Since the earth with gypsum crystals below the one-foot area which I sampled was of less purity than my sample and has already been mixed with the material of which my sample was representative, all of the dump made alongside each of these trenches is less pure than my sample. Now, these trenches constitute only one-third of the cleared area; consequently, approximately one-third of the material within the [476] triangular area which I have described as having an altitude of 250 feet, has already been so contaminated that it is of less purity than my sample. Absolutely no method of treatment could improve the quality of this material.

Q. With reference to your statement which you have just made to the effect that in doing this devel-

(Deposition of Joseph Jensen.)

opment work the earth and impure gypsiferous material was mixed with the amorphous gypsite and thrown out on the dump, I will ask you if you found a similar condition in all of the other trenches which were made and which you will describe on the lands in question?

A. I did. I found no piece of work in which it appeared that an effort had been made to segregate the richest material from the obviously impure material. The only attempt at separation that had been made was that which resulted from scraping the portion of the overburden from off a large area, in which trenches were placed. The scraping did not always remove all of the soil. After the area had been scraped trenches were made, but everything removed from them was placed on a common dump, sometimes entirely at one side of the trench and sometimes on both sides, but there was no material which had been sorted out as being of better quality.

These dumps, therefore, contained material of less purity than the samples which I have reported and will report from the various exposures.

Q. The SE. $\frac{1}{4}$ of the NE. $\frac{1}{4}$ of the SE. $\frac{1}{4}$ of Sec. 30?

A. This ten-acre lot for the most part covers the flat which I described at the beginning of my testimony on this quarter section. The occurrence at d' has already been fully described in my testimony regarding the NE. NE. SE. Sec. 30, being the ten acres to the north. This showing at d' had no ex-

(Deposition of Joseph Jensen.)

tent whatsoever and lacked evidence of quality, so that it was clear that it would not [477] be as pure as the samples I had previously taken from the claim. "Universal well No. 9" is located on this ten-acre lot. The sump and dump from the cellar contained no evidence at all of gypsum-bearing material. I therefore made a nongypsum classification of this ten acres.

Q. The SE. $\frac{1}{4}$ of the SE. $\frac{1}{4}$ of Sec. 30? Before entering upon your statement as to the SE. $\frac{1}{4}$ of the SE. of Sec. 30, 40 acres, I desire to offer a map showing the extent of gypsite and gypsiferous earth as sampled at "cd" on the north half (N. $\frac{1}{2}$) of SE. $\frac{1}{4}$ of the SE. $\frac{1}{4}$ of 30, and invite your attention to map marked Government's Exhibit "F," and ask you to identify and explain it.

(Government's Exhibit "F" is in words and figures following:) [478]

No-A 81-E7 28 to 30 lbs. Blue Bonnet Oil & Coal
" 4 52-7 " " " Last Hick Nuts Coal
" 4 53-7 " " " " " " " " " "

Filed Aug 22 - 1916

Wm W Van Dyke Clerk

By J. J. Greer deputy

MAP 5H

GYP SITE AND

AS SAMPLE

$N\frac{1}{2}SE\frac{1}{4}SE\frac{1}{4}$



Area represented by sample 'd' -
Sample contained 38.37% gypsum

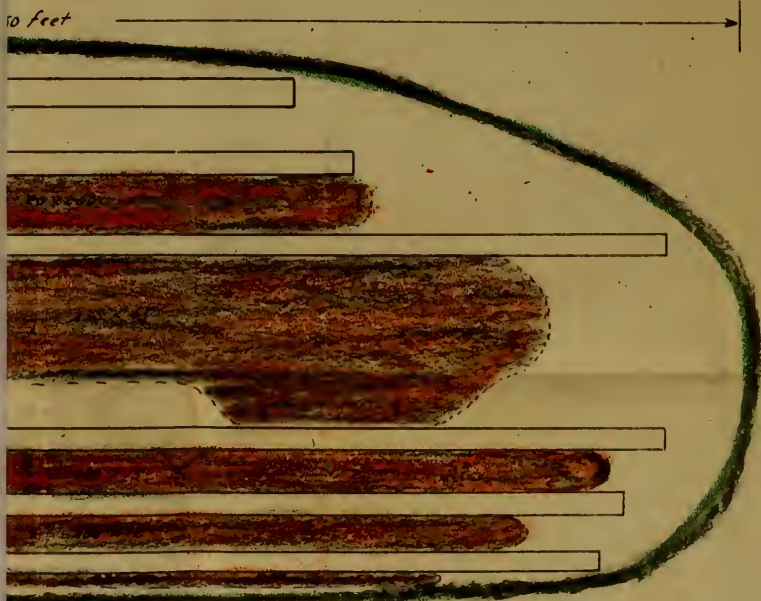


Area represented by sample c - covering the gypsiferous earth layer is absent or has been so as to be lost.

Sample contained 58.67% qy.

SHOWING EXTENT OF
 GYPSIFEROUS EARTH
 FOUND AT "d" ON
 SEC 30, T265-R21E.

one inch = 40 feet.



a one foot layer of earth bearing gypsum crystals,
 m.

a six inch layer of "amorphous" gypsite still in place,
 beneath. Elsewhere on the area represented by "d" the
 removed with lower grade gypsiferous earth or soil
 sum, but mining would reduce this percentage.

(Deposition of Joseph Jensen.)

A. This is a map and not a sketch. It shows the extent of gypsite and gypsiferous earth as sampled at "dd."

Mr. REDDING.—Where is "cd" on this map?

Mr. MURPHY.—"cd" is on the map marked Government's Exhibit "E."

Mr. REDDING.—And this area colored here in red, and surrounded by a green oval, is what you call "cd"?

A. (Continuing.) Yes. The showing at "cd" is on the N. $\frac{1}{2}$ SE. $\frac{1}{4}$ SE. $\frac{1}{4}$ of Sec. 30. By reference to Exhibit "F" it will be noted that "cd" occurs on a portion of land between two gulches. It is really on a low ridge, and covers the top of the same. The greater part of the occurrence at "cd" is on the NW. $\frac{1}{4}$ SE. $\frac{1}{4}$ SE. $\frac{1}{4}$, and extends eastward into the NE. SE. SE. Here over a somewhat elliptical area the surface soil has been removed. This elliptical area has diameters of 450 and 200 feet. On this area I found a thin layer of amorphous gypsite. Beneath it where it was present and adjacent to the area on which it was present, I found earth containing gypsum crystals. The green ellipse on exhibit "F" covers the extent of the earth with gypsum crystals as developed. [479] I took a sample of the earth containing gypsum crystals, but did not include the amorphous gypsite above. My sample is therefore only typical of the earth with the crystals. My sample was taken across a one-foot layer. Beneath this one-foot layer the material was becoming more earthy, but at one foot was clearly of no

(Deposition of Joseph Jensen.)

value. This sample contained 38.37% gypsum. Owing to its very impure character, mining resulting in the addition of less pure material from below could not greatly reduce its purity. This is one of those exposures which I have previously referred to in my testimony, where the gypsum crystals in the earth are separate and not interlocking. Of course on the air-slaked surface the earth and crystals have separated very nicely, but below the surface veneer where the air has not tended to slake the earth the mass is tougher and harder.

The long rectangles across the diagram Exhibit "F" represent trenches that have been made at "ed." The area colored red represents that portion of the exposure where the thin layer of amorphous gypsite was still present. Elsewhere it either had been absent originally or had been scraped off in removing the overburden of surface soil. The figures on the red area give the dimensions of the exposures. The layer of amorphous gypsite varied in thickness from 3 to 9 inches. Its average thickness would be 6 inches or less. My sample "c" was confined exclusively to this thin layer of amorphous gypsite. The sample contained 58.67% gypsum, but mining would of course reduce this percentage.

A. (Continuing.) The amorphous gypsite only weighs 80 pounds to the cubic foot. It would therefore require an area of 25 sq. ft., having a thickness of one foot, to secure a ton of material. Of course in mining a 100% recovery is not possible; consequently it would require more than an area of 25 sq.

(Deposition of Joseph Jensen.)

ft., having [480] a thickness of one foot, to secure a ton of material. For the sake of illustration, if the mining could be so perfect as to secure a ton of material from an area of 27 sq. ft., where the layer was one foot thick, it is clear to secure this it would be necessary to remove the overburden from an area of 27 sq. ft. and to remove all of the gypsite from an area of 27 sq. ft. When, in such a case as this, where we have only a 6-inch layer of amorphous gypsite, it would require 54 or more square feet of area to secure a single ton.

By computing the area represented by sample "c," it will be seen that there is only a very small tonnage of amorphous gypsite at this point. The material is lacking both as to quantity and quality so far as sample "c" is concerned, and I have therefore made a nongypsum classification.

A. (Continuing.) On the ten acres on which it principally occurs, viz: NW. $\frac{1}{4}$ SE. $\frac{1}{4}$ SE. $\frac{1}{4}$ Sec. 30, it is of course self-evident that the material represented by the sample "d" is only a very low grade gypsiferous earth, similar to deposits that have very, very widespread occurrence throughout the west side of the San Joaquin Valley, and throughout the United States.

A. (Continuing.) The occurrences at b' and c' on exhibit "E" are along an oiled road (SE. $\frac{1}{4}$ SE. $\frac{1}{4}$ Sec. 30). This oiled road has a crown in the center, and cuts on either side varying in depth from 6 to 12 inches. The occurrences at b' and c' are extremely limited and very thin. Inspection showed that they

(Deposition of Joseph Jensen.)

lacked extent, and that the material as exposed was also less pure than that which I had already sampled on this claim.

On the NE. SE. SE. Sec. 30, there is a well known as "Universal No. 10." Its sump had a cut in which a 3-foot face of earth was exposed. This cut showed only earth with a few gypsum crystals [481] in it, just enough present to stiffen or harden the earth. This particular position, being on a gulch bank, would be a favorable point to expect the occurrence of an amorphous gypsite layer, but this work at Universal No. 10 showed that it was absent. The south bank of the gulch is on two ten-acre lots, included in the E. $\frac{1}{2}$ of the SE. $\frac{1}{4}$ SE. $\frac{1}{4}$ Sec. 30. A greater part of the occurrence, however, is on the north ten acres.

I used the same method of sampling which I have described heretofore, and my sample "a" contained 51.66% gypsum. It was representative of a 12-inch layer, usually entirely of amorphous gypsite, but mining would reduce this percentage.

Q. How thick was the gypsiferous material at that point?

A. The gypsiferous material at "a" beneath my one-foot layer was not pure enough to include in the sample. Its thickness would not be more than a foot or so below the sample. This occurrence, which I have described, is shown on the map "Government's Exhibit E" at point "a." At "b" there is a water well for which a cellar has been made. This cellar shows a basal layer of earth containing gypsum

(Deposition of Joseph Jensen.)

crystals. My inspection in the cellar showed that there were 6 inches of earth, underlain by a foot of amorphous gypsite, which was of the approximately same purity as sample "a," namely, 51.66% gypsum. Beneath this there was a 1½-foot layer of granular material consisting of gypsum crystals and grains of earth. I took a sample across this 1½-foot of material, known as sample "b." This point "b" is also shown on Government's Exhibit "E." The sample contained 68.91% gypsum. Beneath this 1½-feet which I sampled there was a thin crystal mass that was somewhat richer in gypsum, but it was so tough that it could hardly be picked. It was such that it could not be mined by the usual methods which might be suggested for the overlying material; that is, with a plow and [482] scraper, and would have to be blasted. Furthermore, to make any use of it, it would be necessary that an expensive mill, having power and crushing apparatus, be available. This richer streak, and also the 1½-foot of material, were only exposed in the cellar, and there was no evidence at hand upon which it could be assumed that they represented an extensive deposit. Evidence of quantity of material was therefore lacking.

As I have pointed out, the 1½-foot layer could not be treated economically in order to improve its quality. The material contains such a small percentage of gypsum that it is not valuable for any present purposes, according to standard practices. In addition to this fact, mining would reduce the quality of the product so that my return of 68.91% gypsum

(Deposition of Joseph Jensen.)

could be reduced to 60% very readily, unless great care was exercised in mining.

A. (Continuing.) On the SE. $\frac{1}{4}$ of the SE. $\frac{1}{4}$ of Sec. 30, the exposures shown on my map, Government's Exhibit "E," at "ab" "cd" b' and c' constitute the only exposures of gypsum-bearing material on the entire 40 acres. At no point was material of exceptional quality found, and a nongypsum classification of the entire 40 acres is made.

Q. The SW. $\frac{1}{4}$ of the SE. $\frac{1}{4}$ of Sec. 30?

A. This 40 acres does not cover any part of the Lost Hills. It is almost perfectly level except in the very northeast corner where there may be a slight upward slope toward the hills. The southwest portion is exactly the same as thousands of acres of land in the San Joaquin Valley to the west. At the point a', shown on Government's Exhibit "E," along the oiled road heretofore mentioned, the cut varies from 6 inches to a foot. Here beneath a 6-inch overburden of soil, there is a 3-inch layer of amorphous earthy gypsite covering earth with gypsum crystals. This was of [483] such poor quality that simple inspection indicated that it would contain less gypsum than the samples previously mentioned on the quarter-section. The exposure gave no evidence of quantity of material as well, so that at a' quantity and quality were lacking.

At f' on the map known as Government's Exhibit "E" a series of trenches have been made. These are entirely in earth, and are 5 in number. On the dump of one of them I found a few loose gypsum crystals,

(Deposition of Joseph Jensen.)

but I was unable to find any crystals in earth in place. I did find that the earth contained white splotches, but this is characteristic of much of the soil in the flat to the west of the Lost Hills. On the remaining part of this 40 acres no work had been done in an effort to expose gypsum-bearing material, and no surface evidence of any kind or indication was found pointing to the presence of gypsum-bearing material.

Q. In the examination of this 40-acre tract, did you make careful examination of each ten-acre tract embraced therein?

A. I did. I examined each of the ten-acre tracts very carefully, and separate, to make sure.

The WITNESS.—(Continuing.) I found no evidence whatsoever of deposits of gypsum other than have been described by me. I classified each of those ten-acre tracts included in this 40 acres as nongypsum or nonmineral.

Q. We will now take up classification and description of gypsum deposits found by you on the NW. $\frac{1}{4}$ of Sec. 30, T. 26 S., R. 21 E., M. D. M., embraced in Visalia Mineral Application 03431, and I will ask you to describe the land in ten-acre tracts, beginning with the N. $\frac{1}{2}$ of the NE. $\frac{1}{4}$ of the NW. $\frac{1}{4}$ of Sec. 30. First, however, I desire to offer in evidence a plat of this quarter-section similar to the one which has been offered in connection with the SE. $\frac{1}{4}$ of 30, and will ask that this plat be marked Government's Exhibit "G." [484]

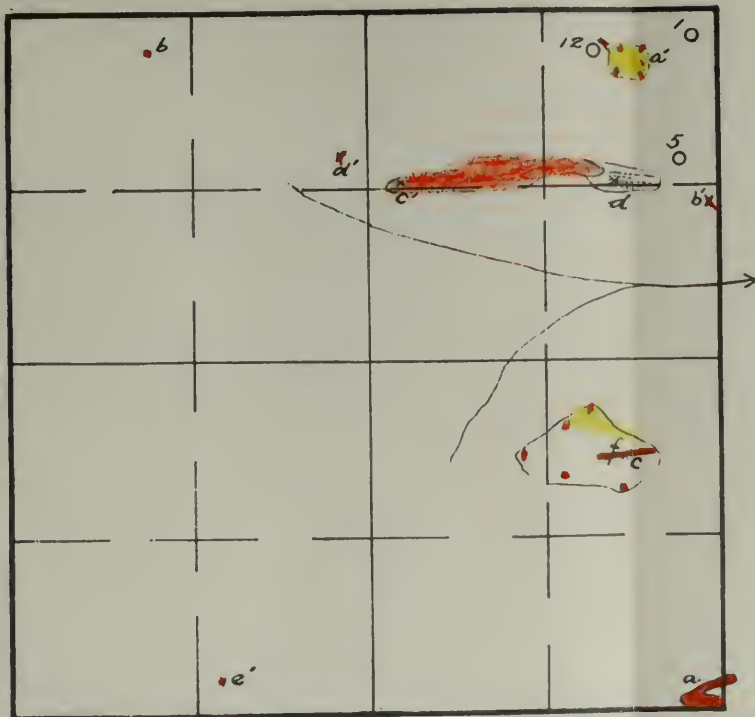
(Government's Exhibit "G" is in words and figures following:) [485]

Govt Exh G.
See Transcript p 75, 114




See Transcript p 75, 114

LOST HILLS PLACER

NW $\frac{1}{4}$ SEC 30, T26S-R21E.



Scale 1 inch = 660 feet

-  No gypsum exposed
 Natural exposure of gypsum
 Gypsum developed by assessment work or otherwise

1,512 Oil wells of Universal Oil Co.

a, b, d' Points where gypsum was noted.

No A-37-64 US in Devils Den Coast Del Co Etal

A-52-1 " " " East Hills Mfg Co Et al

" A-57-" " " " " " " "

Plffs-Exhibit "G" - Filed Aug 22-1916.

Wm Van Dyke Clerk

ITALIA 03431

3837

By J. F. Green Deputy

JJ 18/5/14.

(Deposition of Joseph Jensen.)

The WITNESS.—(Continuing.) This plat—Government's Exhibit "G"—was made by me. This map was made in the same manner as the ones for the SE. $\frac{1}{4}$ of Sec. 30, and was based on a careful survey. It represents conditions as I found them on the NW. $\frac{1}{4}$ of Sec. 30.

Q. Before going into detail of the ten-acre tracts, describe the topography of this quarter section?

A. This quarter section covers a part of the top of the west flank of the Lost Hills, but extends a considerable distance out on the flat or bottom of the San Joaquin Valley to the west of the Lost Hills. The gulch shown on the map is rather deep, there being a difference of elevation as much as 50 or 75 feet. Its north and south banks are fairly indicated on the map by the colored belt between c' and "d," and also near the letter "c."

Q. Proceed with the N. $\frac{1}{2}$ of the NE. $\frac{1}{4}$ of the NW. $\frac{1}{4}$ of 30.

A. At the point a' on the map Exhibit "G" considerable oil development work has been done around "Universal Well No. 12." The surface has been oiled and crossed by wagons, so that it is not in its original condition. Some cabins have also been built near here. The material looks attractive because it is so white. The oiling of the surface and the soil still remaining represents an overburden of 1 to 2 inches of waste. Six cuts are made here and all were examined.

Mr. REDDING.—Made by you?

WITNESS.—By myself. The amorphous gypsite

(Deposition of Joseph Jensen.)

layer in these cuts was 3 inches, 2 inches, 6 inches and 7 inches. This very thin coating could hardly be described as anything but veneer. The six cuts which I made showed that the deposit lacked extent, and the thinness of the same indicated that it could not be considered as workable. The general appearance of the product was [486] less encouraging than that noted at other points on the quarter section, and no sample was taken.

The showing at "d" extends westward in a continuous belt to c', reference being made to Government's Exhibit "G." This exposure occurs on the top of the north bank of a large east-west gulch, which begins and drains eastward on this claim. Owing to the ease with which the earth could be scraped into the gulch, approximately an acre and a half or two acres have been cleared, so as to expose a somewhat small acreage of amorphous gypsite. The overburden was probably about a foot thick. The upper layer of the gypsite is extremely hard and somewhat uneven, so that not all of the earth has been removed. Nevertheless on a clear sunny day the showing stands out as a broad, white belt, creating the impression that the entire country is filled with gypsum.

East of "d" eight excavations have been made in four parallel lines across the belt which represents the extension of c' d. A casual inspection and examination of these excavations suggest that a great deal of gypsum is also present in them. When the sides of the trenches are broken down a different condition

(Deposition of Joseph Jensen.)

is observed. Eight such cuts were made in these trenches. Upon close examination it was found that the fresh unexposed surface contained less than 40 to 50% gypsite. In addition to this fact the mass contained a great deal of gravel. As a fertilizer this material would be impossible because of the gravel present. Only at one point in these trenches was a somewhat pure deposit noted. This showing was very small and did not extend to the opposite side of the trench, nor to a point 15 or 20 feet east.

The sample "d" which I took was taken only of the gypsite exposure colored red on Exhibit "G," on the NE. NE. NW., Sec. 30. The average thickness of the layer sampled was 9½ inches. Furthermore, [487] only the richest material was selected, some of my sample cuts being abandoned because they showed material that was less pure. This carefully selected sample contained 73.66% gypsum. The area on the NE. NE. NW. of Sec. 30, which this sample represents, is about 200 feet long and 75 feet wide, or approximately one-third of an acre. This acreage also represents the total probable extent of material of this character on this ten-acre lot. Mining would reduce this percentage fully 10 to 15%, owing to the great difference which must exist between any method of mining and my selective method of sampling.

A. (Continuing.) I have heretofore indicated that a gypsum deposit must be able to furnish a mined product having a purity of 80 to 85% at the very lowest, in order to conform to the present standard

(Deposition of Joseph Jensen.)

practices in the gypsum business.

A. (Continuing.) The average mined material of this 9½-inch layer would probably only run about 60 to 65%. The occurrence of gypsite mapped on Exhibit "G" as at e' on the NW. ¼ NE. ¼ NW. ¼ Sec. 30, is of much the same character as to quality and thinness of deposit as my sample "d." The total exposure covers about an acre and a half, this being an excessive estimate of the area, and representing all of such material that can possibly exist here.

A. (Continuing.) There is no evidence that material of the character represented by sample "d" is more extensive than exposed. During the month of March, 1916, I returned to this exposure and took a sample which was representative of an 18-inch layer of material exposed in c' and "d," and the trenches east of "d." This sample would be a much better average of the deposit; and while I do not consider that an 18-inch layer is a layer sufficiently thick to be reasonably workable, it would at least be more workable than the 9½-inch layer which I have described. This sample contains [488] 68.18% gypsum, but of course mining would reduce this percentage by approximately one-tenth.

A. (Continuing.) These exposures which I have thus described as occurring at a', c', "d," and included in sample "e," are all the exposures that exist on the N. ½ of the SE. ¼ NW. ¼ Sec. 30. They lack quality that justifies considering them to be of exceptional quality, and a nongypsum classification is therefore made.

(Deposition of Joseph Jensen.)

A. (Continuing.) NE. $\frac{1}{4}$ NW. $\frac{1}{4}$ NW. $\frac{1}{4}$ Sec. 30. The exposure of gypsum-bearing material was noted at d'. This occupies a small knoll having an area of 50 to 100 square feet. This showing was so limited that even if the material was extremely pure, an attempt at its extraction would not be warranted.

A. (Continuing.) The amorphous gypsite is hardly 9 inches thick, and carries an overburden of 3 inches of soil. A nongypsum classification of the tract is made because both quantity and quality are lacking.

A. (Continuing.) NW. NW. NW. Sec. 30. Gypsum-bearing material was noted in a shaft at "b," of the usual pattern dug for a cellar for oil derricks. The overburden varies in thickness in the sides of this shaft from 8 inches to 2 feet, but will generally average at least one foot. On digging into the gypsum it was found to be extremely hard; the upper foot, in fact, being so hard that cutting a trench in it back from the face had to be abandoned. Thinking that this hardness was solely due to exposure, I made two holes in the earth away from the shaft a short distance. These holes established the fact that the upper layer of gypsum material was a very hard crust at least a foot thick. This observation was further confirmed by the fact that the most of the gypsum removed from the holes was hard large blocks. A sample taken across 21 to 27 inches of material contained 76.20% gypsum. Because of the [489] extreme hardness of this gypsite layer, it would be extremely difficult to remove the surface overburden

(Deposition of Joseph Jensen.)

of soil. When the scraper would strike two projections of hard material it would skip over the low places between, and leave all of the soil. For this reason mining would materially reduce the purity of the mined product as compared with my sample. This single isolated exposure of mineral gives absolutely no evidence of extent. My general experience, based on a study of this region and others, indicates that its extent would most probably be extremely limited, so that no quantity of such material would be present. This would not justify any attempt at operating. The mined product would not equal 76.20% gypsum, but would more probably fall down to 60 to 70%, which would be considerably less than the lower limit of 80 to 85% which I have previously noted. Another important factor to consider in connection with this very hard rock-like material is that it could not be used even for the simplest purpose, as a land plaster, without considerable and expensive preparation.

A. (Continuing.) The cost of the removal of this material would be greatly increased because it is too hard to work with a plow and scraper; the gypsite would have to be blasted. Large charges of powder could not be used because they would tear things up generally, and mix the gypsite with the earth. After mining, the material would have to be reduced in size and then dried in some form of drying machinery. Following this treatment it would have to be ground in a bur mill in order to reduce it to such a form that it would be valuable for any of the common

(Deposition of Joseph Jensen.)

purposes of the gypsum industry, even such as a land plaster. Such an operation, would require a large expenditure for motive power, crushing machinery, drying machinery, fine grinding machinery, and in fact would call for an entire gypsum plant. The proven extent of the occurrence [490] is limited to a shaft 8 by 8 feet in a horizontal area, so that I do not believe an expenditure of several thousand dollars would be warranted, based on such an isolated occurrence. In addition to this fact, the product that could be produced in such a plant would still be of much lower grade than that which is ordinarily used in the gypsum industry.

A. (Continuing.) Because of these conditions the ten acres is classified as nongypsum and nonmineral.

A. (Continuing.) S. $1\frac{1}{2}$ of the NW. NW. Sec. 30. No exposures of gypsum-bearing material were noted on these 20 acres, and each ten-acre tract is classified as nongypsum. This particular 20 acres is on a flat west of the hills.

Q. Did you make a careful examination of this tract of ten-acre subdivisions? A. I did.

Q. Was there any evidence whatever, either by way of natural exposures or development work, which would indicate the presence of deposits of gypsite?

A. The only work that occurred here was the oiled road which I have got mapped, and which crosses this 20 acres. Cuts along the road did not show any gypsite. The location of the tract away from the hills was not favorable to the occurrence of the amorphous gypsite layer.

(Deposition of Joseph Jensen.)

S. $\frac{1}{2}$ NE. $\frac{1}{4}$ NW. $\frac{1}{4}$ of Sec. 30. A careful survey was made to determine whether or not the showing of gypsite at c' d extended onto this 20 acres. It was found that no part of this occurrence extended far enough south. Owing to the fact that this tract covers the bottom and side slopes of a large gulch or ravine, there is little hope of any gypsite being found thereon. Except at the point b' this has proven true. A point of the gulch bank is located to the east of b'. Originally [491] it appears that some gypsum excavations were made here, but a fill has been made around the boiler plant so that the original surface of the ground cannot be seen. In order to determine what the original character of the gypsite was, two test holes were dug. One showed 5 inches of gypsite covered with 7 inches of soil. The other was all an earthy gypsite. As near as could be determined, the occurrence at b' was also extremely limited. It was neither high enough in quantity to warrant taking a sample, and was wholly lacking in extent or evidence of quantity. This was the only evidence of gypsum on the entire 20 acres. Each ten-acre tract is therefore classified as nongypsum and nonmineral.

A. (Continuing.) Now comes the N. $\frac{1}{2}$ SE. $\frac{1}{4}$ NW. $\frac{1}{4}$ of Sec. 30. A boulevard-like excavation 250 feet long and 14 feet wide has been made at "c." It constituted assessment work for the year 1913, and was constructed at a cost of \$100.00, and paid for at the rate of 40¢ a cubic yard. Though this work was done as recently as 1913, no effort was made to separate the surface soil from the gypsite

(Deposition of Joseph Jensen.)

below. The excavation represents an expenditure of \$100.00 for the purpose of showing an expenditure for assessment work, but it is of little value as a means of developing gypsum.

A. (Continuing.) A much less expenditure would have accomplished the same result, because of the intermixing of earth and gypsite the work has actually been a detriment for any continued development on the gypsum developed. It will now be impossible to recover the gypsite which has been removed from the 14x250 feet.

A. (Continuing.) Several test pits have been made in the vicinity of this work to determine the limits of a rather extensive showing of amorphous gypsite which extends across the dividing line between the NE. SE. $\frac{1}{4}$ NW. $\frac{1}{4}$ Sec. 30, and the NW. $\frac{1}{4}$ SE. $\frac{1}{4}$ NW. $\frac{1}{4}$ Sec. 30. Most of the exposure is on the eastern ten-acre lot, [492] but as the exposure is the only one occurring on either ten-acre lot and is common to both, it is treated as a unit. On my map exhibit "G" at "c," I have shown where several test pits were made. These test pits were made at the most favorable points for the occurrence of the pure portions of amorphous gypsite. The sample which I took from these cuts would therefore be representative of the best that occurred here, and was not an average.

A. (Continuing.) Several observations were made to establish this fact. This sample was taken across a foot layer. It contained 70.87% gypsum. In the mining of this material it is highly probable

(Deposition of Joseph Jensen.)

that at least ten per cent of impurities would be mixed therewith, so as to reduce the purity of the mined material to 60 to 63%. In March, 1916, I returned to the boulevard portion of this exposure to take a second sample. On the south side of the cut my sample had the following thicknesses: 20 inches, 20 inches, 14 inches, 15 inches, 18 inches, 18 inches. On the north side, only 14 feet away, the thicknesses were: 6 inches, 14 inches, 14 inches, 10 inches, 12 inches, 0 inches, 12 inches. This sample was representative of the material exposed in the boulevard, and with the exception of the fact that, where no gypsite was present and no cut for the sample was taken, it would be an average of a layer approximately 15 to 18 inches thick.

A. (Continuing.) The sample contained 64.32% gypsum. As has been previously explained, the mined product secured at this point would contain a lesser percentage of gypsum, being more nearly about 55 to 58% gypsum.

A. (Continuing.) Even if the first sample "c," containing 70.87% gypsum, were representative of a large quantity of material rather than isolated rich portions, a product could not be mined here that would be sufficiently pure to be considered of value under present practice in California and elsewhere.

A. (Continuing.) As to the higher sample "c," quantity [493] is lacking as well as quality. There would be more material present like the lower sample "f" containing 64.32% gypsum, with a reduction for mining. However, the outside limits of

(Deposition of Joseph Jensen.)

this exposure are indicated on my map, Government's Exhibit "G." Because of the foregoing conditions the two ten-acre tracts: namely, NE. SE. NW. Sec. 30, and NW. SE. NW. Sec. 30, are classified as nongypsum.

A. (Continuing.) SW. $\frac{1}{4}$ NW. $\frac{1}{4}$ Sec. 30. Conditions on this subdivision are not favorable for the occurrence of gypsite, since the tract lies on the open valley flat. An exposure of gypsum-bearing material was noted at e' of the SE. SW. NW. Sec. 30. Here 9 inches to one foot of earthy deposit occurs on a slight rise. Cuts made 20 feet west, 20 feet east, and 20 feet south, show practically no gypsite, thus indicating the limited extent at e'. An insufficient quantity of material is the first and most important objection to its consideration. The material would not carry as much as 50% gypsum even when selectively sampled. This is the only occurrence of gypsite on the SW. NW. Sec. 30. For this reason the land is classified as non-gypsum as to each of the ten-acre tracts embraced in this 40.

A. (Continuing.) SW. SE. NW. Sec. 30. No exposure of gypsum-bearing material was noted on this tract. Conditions are not favorable for its occurrence. A nongypsum classification is made.

A. (Continuing.) SE. SE. NW. Sec. 30. At the point "a" a V-shaped area has been cleared by scraping the dirt to either side, as shown on the map exhibit "G." Both arms of the "V" are about 125 feet long and 30 to 50 feet wide. The overburden was there not more than 6 to 8 inches thick. The

(Deposition of Joseph Jensen.)

layer of amorphous gypsite varies from 2 to 6 inches in thickness. A sample was taken from the upper one foot of the best looking material. It contained 60.50% gypsum, but mining would reduce this purity in the mined product. This percentage is not sufficient to distinguish the deposit as one of special value or possessing exceptional qualities. A non-gypsum [494] classification is therefore made.

Mr. MURPHY.—Before leaving this quarter section, NW. of 30, I desire to ask you what is the proportion of the area showing gypsum to the entire 160 acres?

A. The total exposures would not amount to more than an area of 3 to 6 acres in the entire 160 acres. The topographical features of the claim are such as to indicate that there will not be any unexposed deposit of amorphous gypsite of a quality of as much as 50 to 55%, and furthermore, that exposures of this character will be limited to the higher portions of such as the gulch banks on the claim.

Section 32.

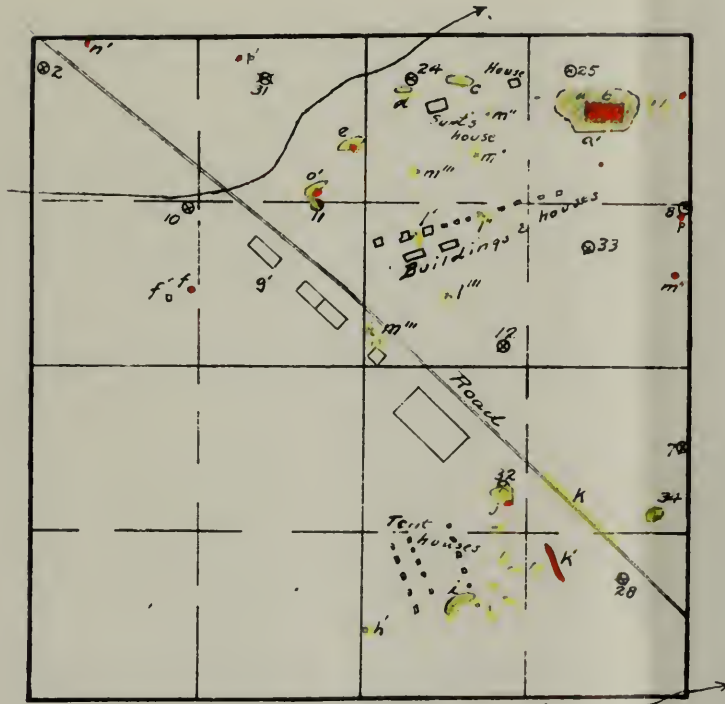
Mr. MURPHY.—We will now take up the NW. $\frac{1}{4}$ of Sec. 32, T. 26 S., R. 21 E., M. D. M., embraced in Mineral Application No. 03448, and will ask you to briefly describe the topographical features of this quarter-section. First, however, I will ask you to identify plat of this quarter-section marked Government's Exhibit "H" which we desire to offer in evidence.

(Government's Exhibit "H" is in words and figures following:) [495]

791. + Exh H
Sec transe p87, 115

PETROLEUM PLACER

NW 1/4 SEC 32, T26S-R21E.



Scale 1 inch = 660 feet.

- No gypsum exposed
- Natural exposure of gypsum
- Gypsum developed by assessment work or otherwise.

2,7,10, Oil wells of Universal Oil Co. (2 & 10 dry)
a, b, m " Points where gypsum was noted.

No-A-37-Eq US vs Swils Drw Crused Del Co et al
" A-52 " " " Lost Hills Zug Co. et al
" A-57 " " " " " " " " " " " "

Pfffs Exhibit - "H" - Filed Aug-22-1916
Wm. Van Dyke Clerk

VISALIA 03448, By JF Ferru Deputy.
Case 3829.

J.L. 1/27/17.

(Deposition of Joseph Jensen.)

A. This map was prepared by me, and is based on surveys made in the field. This claim, for the most part, covers the crest of the Lost Hills anticline, but the Lost Hills have so gently merged into the general slope of the San Joaquin Valley that there is very little difference in elevation between the northwest corner of this quarter-section and its northeast corner. The gulch shown in the north half of the claim running easterly, however, has banks that are from 20 to 30 feet high. It is a broad and open gulch. The SW. $\frac{1}{4}$ of the NW. $\frac{1}{4}$ of Sec. 32 is entirely out on the flat.

This claim contains the camp of the Universal Oil Co. and the map, exhibit "H," shows the location of the various improvements. The buildings on the southwest side of the road consist of [496] a garage, machine-shop and barn. This quarter-section also contains a much larger number of wells than any other quarter-section involved in this proceeding. The location of these wells is located on the map.

In dealing with the separate ten-acre tracts on this particular claim, reference will be made to "Government's Exhibit "H," and the points noted thereon, without particularly calling attention each time to the fact that Government's Exhibit "H" is the map to which I refer.

The WITNESS.—(Continuing.) I examined this quarter-section in ten-acre subdivisions. I made a note of all the exposures, both natural and artificial, of gypsum found on this tract. They appear on this map marked Government's Exhibit "H."

(Deposition of Joseph Jensen.)

Q. You may proceed and give a detailed statement of your examination and classification of the various ten-acre tracts embraced in this quarter-section.

A. NE. $\frac{1}{4}$ NE. $\frac{1}{4}$ NW. $\frac{1}{4}$ Sec. 32: This subdivision contains nearly all of the gypsum development work which has been done on the NW. $\frac{1}{4}$ of Sec. 32. At the points *a* and *b* about an acre and a half have been scraped to remove the surface overburden which covers the gypsite. It is difficult to determine what the exact thickness of this overburden may have been, but it was probably about one foot thick.

Eleven trenches have been constructed in the amorphous gypsite. Nine of these are 50x8 feet wide, and have an average depth of one and one-half feet. The nine trenches are all parallel, and have been placed about 12 feet apart. A tenth parallel trench is 12 feet wide, 50 feet long, and has an average depth of one to one-half feet. An eleventh trench runs at right angles to these ten trenches. It is 117 feet long by 8 feet wide by one and one-half feet deep.

At twenty-three different points in these trenches [497] cuts were made, one and one-half to two feet back from the side for a sample. In each case, this sample was confined to the amorphous gypsite, and was not contaminated by taking any of the gypsiferous earth below, or traces of soil above. The thickness of the gypsite varied from two to ten inches, but on an average would be six to eight inches thick.

(Deposition of Joseph Jensen.)

This sample was carefully reduced from 75 pounds by quartering. It contained 61.12 per cent gross. Mining will reduce this percentage of purity in the mined product about one-tenth.

A second sample was taken across the middle of each one of the trenches. In this sample no amorphous gypsite was taken. Only the gypsiferous earth lying in the bottom of the trench was sampled. This sample showed 51.45 per cent gypsum. Mining will reduce this percentage of purity in the mined product about one-tenth. A third sample of the material represented by the one and one-half feet of depth of the trench, contained 56.59 per cent gypsum. Mining will reduce this percentage of purity in the mined product about one-tenth. This last figure is approximately an average of the two preceding ones.

In the construction of these trenches, it will be remembered that the surface overburden was removed, but no attempt was made to separate the 51 per cent gypsite from the 61 per cent gypsite, though the latter material occurred on the ground on top of the other. Mining will reduce these percentages of purity of 51 and 61 per cent in the mined product, about one-tenth. After excavating, the relationship would be reversed so that the various dumps now contain a lower grade material on top than inside. The whole is now so mixed that no separation is possible.

This exposure at *a* and *b* near the center of this ten-acre lot, is by far the most important found thereon. To the east and to the west of the same,

(Deposition of Joseph Jensen.)

exposures of gypsite are found, but they [498] are of less importance and deserve nothing more than mere mention.

As has already been set forth in this report, the common occurrence of such low grade deposits of gypsite, and the uses to which it can be put, are such factors as to prevent considering a material of 61.12 per cent (mining will reduce the percentage of purity in the mined product about one-tenth) as one of special value or exceptional quality. For this reason, the tract is given a nonmineral classification.

Trees planted by the roadside were found to be in a flourishing condition, though some of the most easterly trees that had died had not been replaced.

NW. $\frac{1}{4}$ NE. $\frac{1}{4}$ NW. $\frac{1}{4}$ Sec. 32: This tract covers the top and north slope of a gulch bank. Along its side, natural exposures of gypsite occur at the points *c* and *d*. In addition to these occurrences, evidences of an impure gypsite were found at the points *m'*, *m''*, and *m'''*. Only the showing at *c* and *d* are of any extent.

At *c* the exposure covered an area of 25x60 feet. A sample taken at about ten different points showed 53.83 per cent. Mining will reduce this percentage of purity in the mined product about one-tenth. The thickness of the gypsite was not determined. This percentage is higher than that which would occur in a layer of any considerable thickness, since the sample was limited to the top 3 to 6 inches of material. This is always the richest occurring in the deposit.

At *d* the exposure was about 35 feet long, and

(Deposition of Joseph Jensen.)

15-20 feet wide. No general sample was taken, but a grab sample of the best looking material was selected. It contained 61.55 per cent gypsum. Mining will reduce this percentage of purity in the mined product about one-tenth. This grab sample should be at least 5 to 10 per cent higher than the average material occurring at the point [499] *d*, and besides this mining would make a further reduction in purity.

The objection raised against the showings of gypsite at *c* and *d* are:

First: That neither one is extensive enough to warrant its extraction.

Second: That even the higher percentage, 61.55, is not of sufficient importance to warrant considering the gypsite as being of special value or exceptional quality.

A nongypsum classification is therefore made.

NE. $\frac{1}{4}$ NW. $\frac{1}{4}$ NW. $\frac{1}{4}$ Sec. 32: This subdivision is cut diagonally by a gulch. On the north line of the tract a slight exposure of impure gypsite was noted by the side of a road. Other exposures were noted at *e* and *o'*. The showing at *o'* occurs north of Uv. 11-32, this well being located on the ten-acre lot to the south. Owing to the oil-development work a goodly portion of the deposit at *o'* has been removed or impregnated by oil so as to be absolutely valueless.

At *e* the exposure of gypsite is about 30 feet wide and 125 feet long. At one point a cut has been made through the earth overburden, and the gypsite beneath. Here the overburden was only 3 to 6 inches

(Deposition of Joseph Jensen.)

thick, while the gypsite was about a foot thick, but it overlay a gravel streak 6 inches thick. Traces of gravel extended upward into the gypsite. A selected sample was taken of the one-foot layer of gypsite. It contained 34.78 per cent gypsum. Mining will reduce this percentage of purity in the mined product about one-tenth. Clearly such a showing is of no value as the basis of a gypsum classification.

The grazing value of the land is equal to that of similar land in this region. The slopes of the gulch which cut across the lot are not any steeper than many hillsides that are plowed and cultivated in California. [500]

NW. $\frac{1}{4}$ NW. $\frac{1}{4}$ NW. $\frac{1}{4}$ Sec. 32: On the north line of this ten-acre tract, at *n'*, a cut 6x12x3 feet has been made. The overburden is from one to two feet thick. A very impure earthy gypsite, from one to one and one-half feet thick occurs here. Inspection without sampling was convincing of the fact that the gypsite was more than one-half earth. The extent of same was not indicated or proven by any other workings. This is the only showing of gypsiferous material on the tract. It merits only a nonmineral classification.

SW. $\frac{1}{4}$ NW. $\frac{1}{4}$ NW. $\frac{1}{4}$ Sec. 32: At the points *f* and *f'*, two derrick cellars have been dug. Both are about 10 to 12 feet deep. At *f'*, beneath 6 to 10 inches of soil, there is a hard layer cemented with lime and gypsum. Possibly 25 per cent of the material may be gypsum. Below this is a sandy soil and clay.

At *f* the overburden is from one and one-half to

(Deposition of Joseph Jensen.)

two and one-half feet thick. This covers about one foot of amorphous gypsite and three and one-half feet of earth with gypsum crystals. A sample was taken of the material, but the showing was of such little importance as not to warrant having it analyzed. The lot is classified as nongypsum.

SE. $\frac{1}{4}$ NW. $\frac{1}{4}$ NW. $\frac{1}{4}$ Sec. 32: At the point *o'* on the north line of this tract, the gypsite occurrence extends a few feet south of the line; but, as already explained, the oil-development work incidental to Uv. 11-32 has destroyed its value. Most of the material has been removed. This is the only showing of gypsite noted on the tract. It necessitates a nongypsum classification.

It is of interest to know that Uv. 11-32 is very near the north line of this lot. In fact, it is not more than 6 to 10 feet [501] south thereof. The well is still producing. It must draw part of its oil from the tract to the north.

The extensive operations of the Company have destroyed the grazing value of more than half of this subdivision, yet it is true that in the northeast corner of the same there are several trees growing. These are a part of the improvements of the main camp.

SW. $\frac{1}{4}$ NE. $\frac{1}{4}$ NW. $\frac{1}{4}$ Sec. 32: Slight exposures of gypsite were noted at *m'''*, *l'*, *l''*, and *l'''*. Those showings at *m'''* and *l'''* were of a thin layer of amorphous gypsum, which might possibly have been three to six inches thick. No development work was done to indicate their extent or value. At *l'* and *l''* clods of gypsum were noted. These were the exposures of

(Deposition of Joseph Jensen.)

three to six-inch gypsite veins occurring in the earth. Such clods might contain as much as 60 per cent gypsum; but, as the veins are so narrow, their extraction would not be justified under any condition.

SE. $\frac{1}{4}$ NE. $\frac{1}{4}$ NW. $\frac{1}{4}$ Sec. 32: The showing at *m''* is absolutely of no consequence. At *p* a cut was found which showed 6 inches to a foot of soil covering 10 inches to 1 foot of gypsite. The sample of this material contained 37.70 per cent gypsum. Mining will reduce this percentage of purity in the mined product about one-tenth. This is clearly of no special value or exceptional quality. A nongypsum classification is made.

NE. $\frac{1}{4}$ SE. $\frac{1}{4}$ NW. $\frac{1}{4}$ Sec. 32: Gypsite is exposed on the slight rise located at Uv. 34. This gypsite layer is not more than three to six inches thick. It is open to the further criticism that the oil-development work has saturated a goodly portion thereof with oil, so as to completely [502] destroy its value for any purpose.

Gypsite is also exposed at *k*, along the main diagonal road which crosses this claim. This road has been cut about one foot deep on both sides. A soil mantle, hardly more than three inches thick, but occasionally 6 to 10 inches thick, covers a 6-to-10-inch layer of gypsite. A sample was taken at several points on both sides of the road, for a distance of about 250 feet. This sample contained 48.80 per cent gypsum. Mining will reduce this purity in the mined product about one-tenth. It seems probable that to the southwest of *k* the claim will also be

(Deposition of Joseph Jensen.)

underlain by a similar impure gypsite. However, material which is only 48.80 per cent pure (mining will reduce this percentage of purity in the mined product about one-tenth) is neither of such special value nor exceptional quality as to call for a gypsum classification.

NW. $\frac{1}{4}$ SE. $\frac{1}{4}$ NW. $\frac{1}{4}$ Sec. 32: Several tent-houses are located on the south half of this land and the ten-acre tract to the south. In preparing for this construction, the area was cleared of brush, plowed and rolled. Thereafter it was sprinkled with oil. This work has so mixed the soil with the crude gypsite below, that small showings of gypsite are noted at several points; but because of this very construction, even the "talking" value of the gypsite has been destroyed.

At the point *j*, near Uv. 32-32, gypsite is exposed in the sump constructed for this well. A layer 6 inches thick was noted. A sample was taken across this 6 inches of material and into the upper six inches of crystalline material beneath. The same showed 46.87 per cent gypsum. Mining will reduce this percentage of purity in the mined product about one-tenth. This exposure of mineral was incidental to oil-development work. Similar exposures at *k* and *k'* indicate that a like character of [503] material will probably be found over a larger area. It is of interest to note that the samples taken at *j* and *k* are found to be within two per cent of each other, indicating a rather uniform character of gypsite. Material which contains 46 to 48 per cent

(Deposition of Joseph Jensen.)

gypsum—and mining will reduce this percentage of purity in the mined produce about one-tenth—is not of special value or of exceptional quality. The subdivision is, therefore, classified as nongypsum.

SW. $\frac{1}{4}$ NW. $\frac{1}{4}$ Sec. 32: No exposure of gypsite was noted on any part of this 40-acre tract, though it was examined with care. Its value for grazing and dry farming is similar to that of adjoining lands in the region. The land has a very small slope to the south.

SW. $\frac{1}{4}$ SE. $\frac{1}{4}$ NW. $\frac{1}{4}$ Sec. 32: Nearly a third of this subdivision is covered with tenthouses and the yards adjacent thereto. In making preparations for these structures the ground was first cleared of brush, then plowed and oiled. This work has mixed the earth with the gypsum below so that a possible gypsum value is out of the question.

At the south end of this work, however, an exposure of gypsite was noted at *i*. Six holes were dug in this material, each being from a foot to a foot and one-half deep. The layer of gypsite is from 3 to 6 inches thick. Below this, the material grades rapidly into earth. The 3 to 6-inch layer of amorphous gypsite contained 58.61 per cent gypsum. Mining will reduce this percentage of purity in the mined product about one-tenth. In addition to this gypsum being of such poor quality, there is such a small quantity that the same is devoid of any value.

A small excavation also exists at *h'*. Little can be said of the showing of gypsum at this point, as it

(Deposition of Joseph Jensen.)

was so unimportant that the taking of a sample was not warranted. [505]

To the northeast of *i*, ground has been plowed and rolled in the same manner as in the yards surrounding the tent-houses. In this way a very large number of exposures of gypsite occur, but investigation invariably shows that the gypsite is so thin that the working of the same would be entirely out of the question. The showing at *i* was by far the best on the ten-acre lot, but this showing is of no special value or exceptional quality, and does not warrant a gypsum classification.

SE. $\frac{1}{4}$ SE. $\frac{1}{4}$ NW. $\frac{1}{4}$ Sec. 32: Exposures of gypsite were noted along the road at *k* and at *k'*. The showing at *k* is along the main diagonal road which crosses to this claim. This road has been cut about one foot deep on both sides, in order to form a crown which has been oiled. A soil mantle, hardly more than 3 inches thick, but occasionally 6 to 10 inches thick, covers a 6 to 10-inch layer of gypsite. A sample was taken at several points at both sides of the road for a distance of 250 feet. This sample contained 48.80 per cent gypsum. Mining will reduce this percentage of purity in the mined product about one-tenth. It seems probably that to the southwest of *k* a similar gypsite occurs. However, material which is only 48.80 per cent pure—and mining would reduce this percentage of purity in the mined product about one-tenth—is neither of such special value nor exceptional quality as to call for a gypsum classification.

(Deposition of Joseph Jensen.)

The showing at *k'* is similar to that at *k*, but the layer of amorphous gypsite is not so thick. These two showings are not of sufficient importance to justify any other than a nongypsum classification.

SUMMARY OF CLASSIFICATION:

Occurrences of gypsite were noted on every part of this claim except the SW. $\frac{1}{4}$, containing 40 acres. In most places the quantity of gypsum was sufficiently small to justify the rejection of the same as a mineral showing, irrespective of its quality.

At the point *ab* on the NE. $\frac{1}{4}$ NE. $\frac{1}{4}$ NW. $\frac{1}{4}$ Sec. 32, and on the [506] NW. $\frac{1}{4}$ NE. $\frac{1}{4}$ NW. $\frac{1}{4}$ Sec. 32, the showings were the most extensive. Likewise, the highest grade gypsite was noted there. The best percentage found was about 61 per cent; but of course mining would reduce this percentage of purity in the mined product about one-tenth. As has already been explained, this gypsum is not one of special value or exceptional quality.

Mr. MURPHY.—Before leaving this quarter-section I desire to ask you what is the proportion of the area showing gypsite, either by natural or artificial exposures, to the entire 160 acres? .

A. Material containing more than 60 per cent gypsum is extremely limited, and when considered as a layer one-foot thick, it will only be found in the area at *ab* on the NE. NE. NW. Sec. 32. It is true that samples *c* and *d*, from the NW. NE. NW. Sec. 32, carry a similar percentage, but these samples are not of one-foot layers. They are from very selective samples of 3 to 6-inch layers, and are not under any

(Deposition of Joseph Jensen.)

condition representative of a workable deposit.

Gypsum-bearing material of a purity of less than 50 per cent as it occurs in the ground, and of even less purity when considered as a mined product, occurs rather widely over this claim, particularly in the west half NE. $\frac{1}{4}$ NW. $\frac{1}{4}$ Sec. 32. There is also a rather extensive area of this very low grade material situated near the center of the SE. $\frac{1}{4}$ NW. $\frac{1}{4}$ Sec. 32.

Q. Does the map marked Government's Exhibit "H" show the approximate area of the gypsum exposed to this tract? A. It does.

Q. We will now take up the NE. $\frac{1}{4}$ of Sec. 32, T. 26 S., R. 21 E., M. D. M., embraced in Mineral Application No. 03457. Did you examine this quarter section by ten-acre tracts or subdivisions?

A. I did.

The WITNESS.—(Continuing.) I made a classification of each [507] subdivision. As a result of my examination of this quarter section, I prepared a plat showing the conditions as found by me on this tract, and based same upon a careful survey.

Q. I hand you Government's Exhibit "I" and ask you to identify it.

A. This is a map prepared by me.

Mr. MURPHY.—We offer in evidence map marked Government's Exhibit "I."

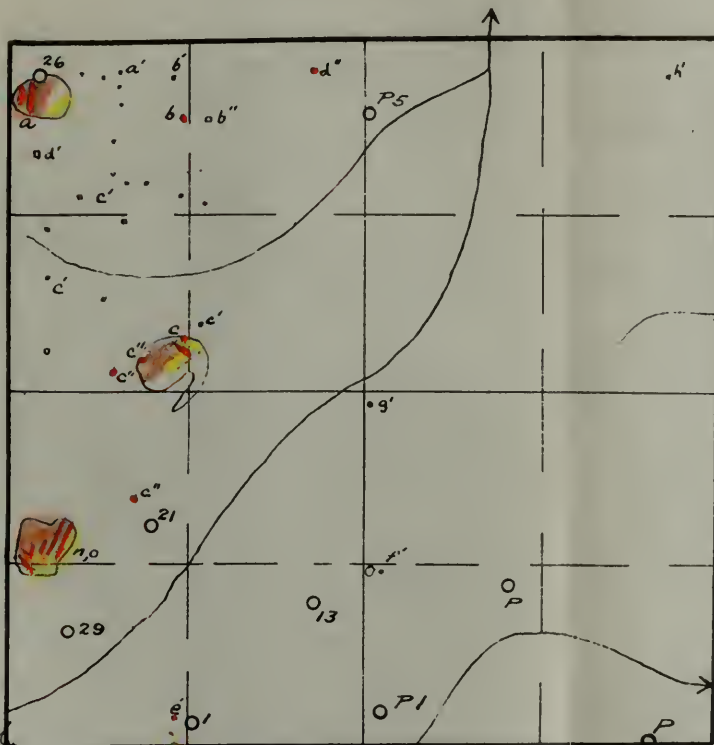
(Government's Exhibit "I" is in words and figures following:) [508]

Griff Exh I

See transcript 2/11/15

EAGLE PLACER

NE 1/4 SEC 32, T26S-R21E.



Scale 1 inch = 660 feet.

- No gypsum exposed
- Natural exposure of gypsum*
- Gypsum developed by assessment work or otherwise

1,13,21 Oil wells of Universal Oil Co.

P1, P Wells and derricks on old Prestage lease

a,b,c" Points where attempt was made to develop gypsum, or points where gypsum was noted.

Platts - Exhibit "I" - Filed Aug-22-1916

Wm W. Van Noyke Clerk

By J. F. Green Deputy

(Deposition of Joseph Jensen.)

Q. What are the topographical features of this tract?

A. The eastern half of this tract covers a portion of the valley floor of the San Joaquin Valley, and the east side of the Lost Hills. While on my map or sketch I have represented several gulches, they are no longer in this portion of the Lost Hills deserving of this name since they are rather swales. I have sketched them, however, more for the purpose of indicating the low points, since in these low places the occurrence of amorphous gypsite is not common.

The east half of the claim is practically level. In fact, the entire claim only has a gentle slope to the east, and the difference in elevation in the half mile between any of the corners of the claim, to an ordinary person not an engineer, would appear as insignificant.

Mr. MURPHY.—In connection with Mr. Jensen's testimony as to this quarter section, I desire to state that the letters or figures referred to by him as indicating points of outcrop or wells correspond with the letters and figures appearing on the Government's map marked exhibit "I."

Q. You may proceed with a detailed statement of your examination and classification of the various ten-acre tracts embraced in this quarter section?
[509]

NE. $\frac{1}{2}$, NE. $\frac{1}{4}$, Sec. 32; Excavations for cellars and sumps have been made at the points *P1*, *P5*, *f'*, *g'* and *h'*. At none of these points except *f'* was even a trace of gypsum noted. At *f'* a paper-like crust

(Deposition of Joseph Jensen.)

of gypsite was noted in a sump. A cellar near by showed a slight trace of gypsum. This showing is not sufficient to establish any gypsum value. The entire E. $\frac{1}{2}$ NE. $\frac{1}{4}$ Sec. 32 is classed as non-gypsum.

NE. $\frac{1}{4}$, NW. $\frac{1}{4}$, NE. $\frac{1}{4}$, Sec. 32: Exposures of gypsiferous earth were found at *b''* and *d''*. The opening at *b''* is a hole about 2 feet deep. No amorphous gypsite was noted. The bottom of the hole contained some gypsiferous earth. At *d''* the gypsum is exposed in a cellar. The overburden was two to three feet thick. Beneath this is a two-foot layer of impure gypsum-bearing material. This is underlain by a clay and then a gravel streak. The gypsiferous earth was so impure that the taking of a sample was not warranted.

These two showings indicate that the gypsum occurring on this legal subdivision is of no special value or exceptional quality. A non-gypsum classification is made.

NW. $\frac{1}{4}$, NW. $\frac{1}{4}$, NE. $\frac{1}{4}$, Sec. 32: The principal showing of gypsite is located at *a*. A little more than one-half acre of land has been scraped so as to show the gypsite below. The overburden appears to have been six inches thick. At the west side of this cleared area there are two trenches. At cuts made in these trenches amorphous gypsum was found to have the following thicknesses in inches: 2, 3, 5, 4, 9, 3 and 3, or an approximate average of about 4 inches.

In this case a sample was taken of a one-foot layer of material so as to include all of the amorphous gyp-

(Deposition of Joseph Jensen.)

sum and some gypsiferous material below. The same was taken across one foot of material [510] because it appeared self-evident that any attempt to mine a bed of less thickness could not even be suggested. Owing to the thinness of the amorphous layer a sample of it alone would be unwarranted. This sample of one foot of material contained 48.52 per cent gypsum. Mining will reduce this percentage of purity in the mined product about one-tenth.

At *b* there is a cellar having an overburden one and one-half to two and one-half feet thick; but generally about two feet. The amorphous gypsite layer is not entirely absent but occurs as white balls or clods with masses of earth along side. This layer varies from nothing to one foot thick. Owing to the fact that the showing of *a* is of much more importance and significance than that of *b*, no sample was taken, since the gypsum character of the subdivision would be determined by the showing at *a*.

The small holes shown at *a'* and *c'* are test pits, dug for the purpose of discovering gypsum. These test pits are usually one and one-half to two feet deep. The test pit at *a'* showed a scattering of crystals, representing approximately one-fifth of the whole. The test pits at *c'* showed no gypsum whatsoever.

A cellar is located at *d'*. It is about four feet deep. A scattering of gravel was noticed in the hole, but there was no sign of gypsum.

The best showing on this tract is that noted at *a*,

but the percentage, 48.52, which would be reduced in purity in the mined product about one-tenth, is not sufficiently high to justify holding the gypsum to be of special value or exceptional quality. The subdivision is classified as nongypsum.

S. $\frac{1}{2}$, NW. $\frac{1}{4}$, NE. $\frac{1}{4}$, Sec. 32: Small prospect cuts for gypsum occur at the point *c'*, but none of these cuts contain gypsum. The principal showing of [511] gypsum-bearing material is at *c*. Here the overburden from an area 200x25 feet has been scrapped off in part, but not in full, as two or three inches still remain. Originally, it was probably about six inches thick. On this section, gypsite has been exposed, but in addition thereto other land has been scraped without exposing any gypsum. Its limits are sketched approximately on the plat. Practically no amorphous gypsite was noted at this point. As there appeared to be no change in character in the gypsiferous earth the sample was taken across one and one-half feet of material at four different points. This sample contained 36.02 gypsum. Mining will reduce this percentage of purity in the mined product about one-tenth.

At *c''* the showing of gypsiferous earth is similar to that noted at *c*. This is approximately the western limits of the showing, as *c* is on a slight rise and *c''* is at the western base of the same. While a considerable quantity of gypsum-bearing material exists here it is of such poor quality and so lacking in any special value as to necessitate a nongypsum classification.

NE. $\frac{1}{4}$, SW. $\frac{1}{4}$, NE. $\frac{1}{4}$, Sec. 32: A very small

(Deposition of Joseph Jensen.)

showing of gypsite has been made in a cut near *g'* in the northeast corner of this tract. Save that it marks an occurrence of gypsite it is of no significance.

NW. $\frac{1}{4}$, SW. $\frac{1}{4}$, NE. $\frac{1}{4}$, Sec. 32: A small showing of gypsum was noted at *c''*. It was similar in character to that already described at *c* and the other point marked *c''*. The principal showing on this legal subdivision is at points *n*, *o*. Here the overburden has been removed from nearly an acre of ground. Five trenches have been dug so as to expose the gypsite, while a ditch for a pipe-line further furnishes [512] other exposures of mineral so as to permit the taking of an accurate sample. For the most part the layer of amorphous gypsite was only two or three inches thick, but at one point on a slight rise the layer was found to be a foot thick.

In view of the general thinness of the amorphous layer, and the fact that the mining of a bed less than a foot thick can hardly be suggested, a sample was taken from about 10 different points across a one-foot layer. This contained 53.57 per cent gypsum, but of course mining will reduce this per centage of purity in the mined product about one-tenth.

Another sample was taken in these trenches across a one and one-half foot layer, but it was not representative because it included a large proportion of the rich veneer which, I have stated, occurs on the sides of the trenches. Even while thus adulterated this sample one and one-half foot layer only carried 50.48 per cent gypsum, thus indicating the difference

(Deposition of Joseph Jensen.)

in purity between a one-foot and the one and one-half foot layer. Any product mined here would be of a lesser per cent than the sample I have taken.

April 8th, 1916.

WITNESS. — (Continuing.) Such percentage distinguishes the occurrence as one of no special value and without an exceptional quality of gypsum. For this reason a nongypsum classification is made.

SW. $\frac{1}{4}$, SW. $\frac{1}{4}$, NE. $\frac{1}{4}$, Sec. 32: Exposures of gypsum were observed at *d*, *e'* and *n*, *o*. The showing at *n*, *o* has been described and held to be of insufficient importance to justify a gypsum classification. In addition to this fact it should be added that the deposit hardly continues into this 10-acre tract. [513]

At *d* the showing is almost entirely on an adjoining 10-acre lot. It is about 100 feet long and possibly 20 to 30 feet wide. A single sample of the entire showing was taken by making excavations at five different points. It was found that the amorphous deposit in three of these holes was only one inch thick. The two holes located on this tract showed a layer of material three and six inches thick. The sample contained 57.38 per cent gypsum. Mining will reduce this percentage of purity in the mined product about one-tenth. Not more than 100 to 200 square feet of this material is on this 10-acre lot, and it is from 3 to 6 inches thick. The gypsite on this small area is underlain by earth containing gypsum, but of much lower grade than the sample which is referred to.

(Deposition of Joseph Jensen.)

The material is not of sufficient importance to justify a gypsum classification for two reasons:

1st: There is not enough.

2d: The percentage of gypsum contained therein is not sufficient to distinguish the deposit as one of special value or exceptional quality.

At *e'* there was once an amorphous gypsite, but most of it has been scraped away; very probably to form a sump hole. Only the granular earth base remains though a few scattered spots of isolated gypsum occur. These are so small that one could hardly gather a wagon load by carefully shovelling up all of the material.

SE. $\frac{1}{4}$ SW. $\frac{1}{4}$ NE. $\frac{1}{4}$ Sec. 32: No exposure of gypsum-bearing material was found on this subdivision. Owing to the fact that the discovery well and one of the best wells on Sec. 32 occurs on this tract the same was examined a second time to confirm the previous observation, but without any different result. [514]

SUMMARY OF CLASSIFICATION.

Only the exposures of gypsum at *a*, *c* and *n* are of such extent that it might possibly be alleged that they were workable deposits. It is not the practice in the west to attempt the mining of deposits of such thinness as those noted at *a*, *c* and *n*. The best material was that found at *n*, the same being 53.57 per cent pure, but this would be reduced in mining by about one-tenth.

The showings at *a* and *c* were 48.52 per cent and 36.02 per cent. Mining will reduce these percentages

(Deposition of Joseph Jensen.)

of purity in the mined product about one-tenth. All of these percentages are so low as to distinguish the deposits as being of no special value and lacking material of exceptional quality.

These three occurrences occur in the west tier of 10-acre lots in the claim, being the W. $\frac{1}{2}$ W. $\frac{1}{2}$ NE. $\frac{1}{4}$ Sec. 32. The entire claim is therefore given a non-gypsum classification.

Furthermore, this work has been placed at the only favorable points on the claim, and the showings developed constitute all that there is any hope of finding on the claim.

SW. $\frac{1}{4}$ Sec. 32:

Mr. MURPHY.—We will not take up the SW. $\frac{1}{4}$ of Sec. 32, T. 26 S., R. 21 E., M. D. M., embraced in Mineral Application No. 03459, and I will ask you, Mr. Jensen, if you made a careful, detailed examination of this quarter section by ten-acre subdivisions?

A. I did.

Q. As a result of this examination, did you prepare a plat showing what you found on the land?

A. I did.

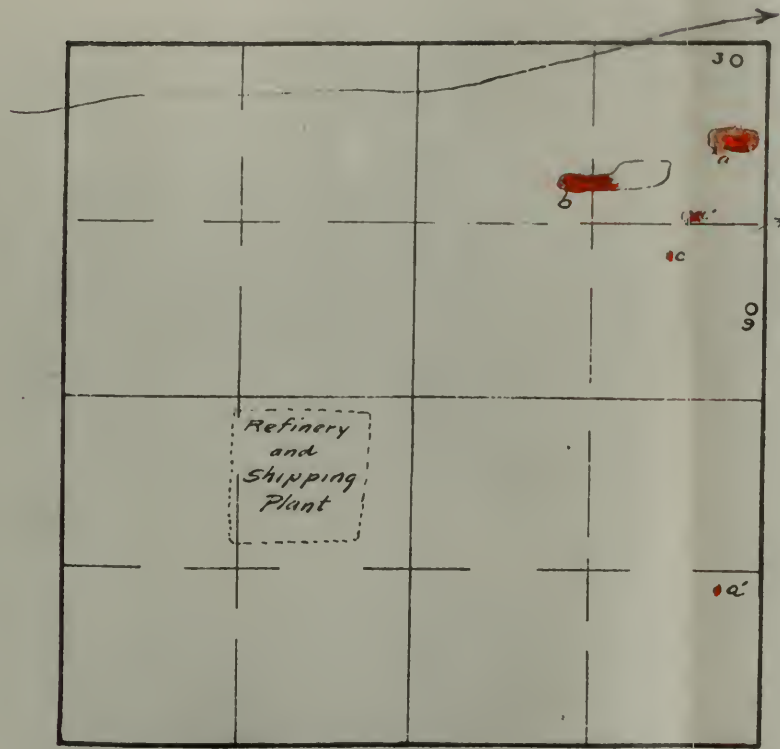
Q. I hand you what purports to be a map of the SW. $\frac{1}{4}$ of Sec. 32, marked Government's Exhibit "J," and ask you to identify [515] it.

(Government's Exhibit "J." is in words and figures following:) [516]

Govt Exhibit
 See transcript - 646
 116

JUDGE PLACER

SW 1/4 SEC 32, T26S-R21E.



Scale 1 inch = 660 feet

- No gypsum exposed
- Natural exposure of gypsum
- Gypsum developed by assessment work or otherwise.

3, 9, Oil wells of Universal Oil Co.
 a, b, c' Points where gypsum was noted.

No-A-37-Eq 26 S W Devils Den owned Del Co et al
 " A-52-Eq 26 S " Lost Hills Wg Co et al
 " A-57-Eq 26 S " " " " "

Reffs- Exhibit - J - Field Aug 22-1916
 Wm W Vandyke - clerk
 By J F Green Deputy

(Deposition of Joseph Jensen.)

A. This is a map which I prepared, based upon my survey.

Mr. MURPHY.—We offer in evidence map prepared by Mr. Jensen, marked Government's Exhibit "J."

Mr. MURPHY.—Before taking up this quarter section by ten-acre tracts, I will ask you to briefly describe the topographical features of this quarter section.

A. This quarter section is practically level. More than one-eighth of it will hardly vary 5 to 10 feet in difference of elevation. The gulch which I have indicated at the north end of the claim is merely a wide flat draw that is hardly noticed until one reaches the east half of the claim. Here the difference of elevation between the bottom of the draw on the bank of the south side within the claim may be as much as 10 or 20 feet.

The Lost Hills have practically merged into the valley floor by the time the south half of Sec. 32 is reached, so that evidence of the anticline is furnished by wells which have been drilled and by the occurrences of gypsiferous material at certain points along its strike.

Q. You may now proceed with a detailed statement of your examination and findings, and also classification of the various legal subdivisions embraced in this quarter section, beginning with the W. $\frac{1}{2}$ SW. $\frac{1}{4}$ Sec. 32. In connection with Mr. Jensen's description of his findings on the SW. $\frac{1}{4}$ of 32, I desire to state that the letters and figures which he will refer to as

(Deposition of Joseph Jensen.)

designating the points where he found exposures or got a showing of gypsum or an oil well, correspond with the letters and figures found on plat marked Government's Exhibit "J."

A. This 80 acres covers land whose soil is a valley fill, and not a part of the Etchegoin formation in which the gypsiferous [517] earth occurs. No evidence of any kind suggesting or indicating or promising the presence of gypsum was observed, nor was any gypsite found on the west half of this quarter section. The land is perfectly flat, and supports a good growth of sage brush and grass. Its value as grazing and dry farming is equal to that of other lands of this vicinity.

In the center of this tract the claimant has constructed a pumping plant and refinery at a cost of about \$40,000 to \$50,000.

SE. $\frac{1}{4}$ SW. $\frac{1}{4}$ Sec. 32: On this 40 acres there is no exposure of gypsum except at the point *a'* on the SE. $\frac{1}{4}$ SE. $\frac{1}{4}$ SW. $\frac{1}{4}$ Sec. 32. This is the point at which the Rotary rig was set up in 1910 and a hole drilled 400 feet deep. Mention thereof is made in the report of Special Agent C. D. Hamel.

The excavation of gypsite was incidental to this oil work and no mineral in place was observed, but a scattering of crystals was found on top of the dump. The overburden of earth observed was $1\frac{1}{2}$ feet thick, but its total thickness is not known as the gypsum was not seen in the ground. This slight showing of gypsite is only of value in indicating that the gypsiferous beds occur beneath this land. It is not suffi-

(Deposition of Joseph Jensen.)

cient to warrant drawing any conclusion other than that the land has no value for gypsum.

The surface of this SE. $\frac{1}{4}$ SW. $\frac{1}{4}$ Sec. 32 is entirely level, and the land is similar in character to the W. $\frac{1}{2}$ SW. $\frac{1}{4}$ of the claim.

SW. $\frac{1}{4}$ NE. $\frac{1}{4}$ SW. $\frac{1}{4}$ Sec. 32: This 10-acre lot is similar to the W. $\frac{1}{2}$ SW. $\frac{1}{4}$ of Sec. 32 of the claim. No exposure of gypsite was noted.

SE. $\frac{1}{4}$ NE. $\frac{1}{4}$ SW. $\frac{1}{4}$ Sec. 32: At the point *c* a small excavation has been made. When first examined the west side thereof showed what appeared to be [518] a pure gypsite, while the east wall showed only a gypsiferous earth. In attempting to make an excavation on the west side of the cut, it was found that this side was a narrow gypsum vein. Behind it, there was only gypsiferous earth. The overburden here was one foot thick. My sample represents one and one-half feet of material below this. It contained 37.94 per cent gypsum. Mining will reduce this percentage of purity in the mined product about one-tenth.

Another excavation on this 10-acre lot has been made at well Universal No. 9-32. An examination of this sump shows no gypsite.

Clearly the showing of 37.94 per cent gypsite (mining will reduce this percentage of purity in the mined product about one-tenth) at the point *c* is neither a valuable commercial nor an exceptional showing. The lot is, therefore, classed as not being valuable for gypsum.

(Deposition of Joseph Jensen.)

The soil is of the same character as that on the W. $\frac{1}{2}$ SW. $\frac{1}{4}$ Sec. 32.

NW. $\frac{1}{4}$ NE. $\frac{1}{4}$ SW. $\frac{1}{4}$ Sec. 32: An exposure of gypsite was noted at the point *b*. Five trenches have been excavated in this material at the expense of the applicant. A sample was taken from 20 different cuts or points on these trenches, having a total weight of 75 pounds. The material was between 1 and $1\frac{1}{2}$ feet thick, occasionally being as thin as 6 inches. This sample showed 52.86 per cent gypsum. Just what the overburden may have been here is not known, as the surface had been scraped at one time or another. Mining will reduce the above-mentioned 52.86 per cent sample in the mined product about one-tenth.

The gypsum at *b* is for the most part of the crystalline variety. Due to the intergrowth of crystals, it is particularly tough. Before it could be used in any way it would have to be [519] crushed. It is very improbable that it could be excavated by using a plow and scraper; more probably it would be necessary to pick the same or use powder. The showing is open to the further criticism that there are several impure streaks of earth that run across it in a northeasterly direction. It is not believed that a gypsite containing 52.86 per cent (mining will reduce this percentage of purity in the mined product about one-tenth) gypsum is sufficiently pure to justify classing the same as an exceptional exposure of gypsum.

The work which has been done at *b* on this 10-acre

(Deposition of Joseph Jensen.)

lot represents the extent of this material. In order to convince myself of this fact I made test pits around the outer limits of the work, and found that the showing of gypsiferous material was not to be compared even with the poor showing at *b*. The tract is therefore classed as nongypsum.

It is also interesting to note that between \$200 and \$300 have been spent at this point *b* in making the five trenches referred to. Absolutely no attempt was made, however, to sort out the earthy material that occurs in the east end of the trenches so as to secure a pure mineral. Its soil is similar to that of the W. $\frac{1}{2}$ SW. $\frac{1}{4}$ Sec. 32.

NE. $\frac{1}{4}$ NE. $\frac{1}{4}$ SW. $\frac{1}{4}$ Sec. 32: The showing of gypsite mentioned at the point *b* as occurring on the NW. $\frac{1}{4}$ NE, $\frac{1}{4}$ SW. $\frac{1}{4}$ Sec. 32 extends across the dividing line between the two 10-acre lots so that a portion thereof is on the NE. $\frac{1}{4}$ NE. $\frac{1}{4}$ SW. $\frac{1}{4}$ Sec. 32. This showing has already been discussed and is not considered of any value.

By examining exhibit "J" it will be observed that the eastern portion of the showing at *b* has been colored a lighter red. This has been done in order to indicate that while there is some [520] evidence of gypsum, it is not to be compared with the material at *b* in the trenches even though this material is very poor. This further clearing of the land has demonstrated the lack of extent of the showing at *b*.

The showing at the point *a*, at the east side of this 10-acre lot, has only a 2 to 6 inch layer of morphous material. The main mass is gypsiferous earth. A.

(Deposition of Joseph Jensen.)

50-pound sample was taken from four different points in the two trenches at *a*. The deposit was from one to one and one-half feet thick. This sample contained 46.50 per cent gypsum. Mining will reduce this percentage of purity in the mined product about one-tenth.

At the point *c'* a 6 to 8 inch layer of earth had been carefully scraped away in the hope of exposing gypsum beneath. This work was rather fruitless. A layer of gypsum-bearing earth 3 to 6 inches thick was all that was exposed. No sample was taken as the bed was too thin and the gypsite too earthy.

The percentages of gypsum found on this 10-acre lot, namely, 46.50 and 52.86 (mining will reduce these percentages in the mined product about one-tenth) do not represent substances of such purity as to justify considering them deposits of exceptional quality or value.

This 10-acre lot had the same general character as agricultural land as the rest of the SW. $\frac{1}{4}$ of Sec. 32, but because of the construction of oil sumps, the drainage of salt water from wells, and the excavations for gypsum, the agricultural and grazing value is somewhat less.

SUMMARY.

The N. $\frac{1}{2}$ NE. $\frac{1}{4}$ SW. $\frac{1}{4}$ Sec. 32 contains the only gypsite showings that exist upon the claim, the highest percentage being only 52.86 per cent. Mining will reduce this percentage of purity in the [521] mined product about one-tenth. This showing merits only a nongypsum classification.

(Deposition of Joseph Jensen.)

The entire quarter section is very level. It is valuable for dry farming and grazing.

The showings at *a'* and *c'* do not indicate the presence of any quantity of material, but rather that gypsum is present. The showing at *c* is of no extent and of very low grade material. The work done at *a* and *b* represents the total extent of gypsum-bearing material on this entire quarter section.

Mr. MURPHY.—Who made the analyses of the samples taken by you?

A. Smith, Emery & Company, of San Francisco, made the analyses of the samples which I took in 1914. The other samples which I took in 1916 were analysed by H. Coffman, Consulting Chemist and Analyst, of Riverside, formerly Chief Chemist for the Riverside Portland Cement Company.

The WITNESS.—(Continuing.) The certificate of Smith, Emery & Company shows the quantity of sulphuric anhydride (SO_3) present in each sample. To determine the quantity of gypsum present, the quantity of sulphuric anhydride must be multiplied by 2.15. It is simply a question of chemical arithmetic, because the quantity of gypsum in any sample is always 2.15 times the quantity of sulphuric anhydride, since it is assumed that the sulphuric anhydride is completely present as a part of the gypsum. The percentages of gypsum shown by me in my testimony are computed from the results of the analyses furnished by the chemist. These computations were made by me.

Q. I hand you certificates marked Government's Exhibit "K" and Government's Exhibit "L" and ask you to identify them. [522]

(Government's Exhibits "K" and "L" are in words and figures following:) [523]

Laboratory Certificate

SMITH, EMERY & COMPANY
Inspecting, Testing and Chemical
Engineers and Chemists

Gort Exh K

See Transcript p 112

San Francisco.

Laboratory
No. 51563 - 51600

Date, December 8, 1914

Sample Gypsum

Marked As below

Received November 28, 1914

Submitted by Department of the Interior,
General Land Office,
512 Customs House,
San Francisco, Calif.
Mr. Joseph Jensen, Mineral Inspector

-- 0 --

Lab. No.	Mark	Sulphuric Anhydride (SO ₃)	% of Gypsum Calculated by Jensen
51563	J12a 18	23.92%	51.45%
51564	J12b 18	26.31%	56.59%
51565	J12b 78	28.42%	61.12%
51566	J12c 20	16.17%	34.78%
51567	J12j 25	21.79%	46.86%
51568	J12K 25	22.69%	48.80%
51569	J12a 54	21.62%	46.50%
51570	J12b 55	24.58%	52.86%
51571	J12c 59	17.64%	37.94%
51573	J12d 65	26.68%	57.38%
51576	J12a 92	24.02%	51.66%
51577	J12b 93	32.04%	68.91%
51578	J12c 94	27.28%	58.67%
51579	J12d 94	17.84%	38.37%
51580	J12f 103	26.14%	54.22%
51581	J12a 109	29.06%	62.50%
51582	J12b 111	35.43%	76.20%
51583	J12c 114	32.95%	70.87%
51584	J12d 117	34.25%	73.66%
51589	J12a 73	22.56%	48.52%
51590	J12c 75	16.75%	35.02%
51591	J12n 29	23.47%	50.48%
51592	J12n 76	24.91%	53.57%
51593	J12c 19	25.03%	53.83%
51594	J12d 19	28.62%	61.55%
51595	J12p 30	17.53%	37.70%
51597	J12i 61	27.25%	58.61%
51600	J12c 96	25.74%	55.36%

Refs- Exhibit W-12 Filed Aug 22 - 1916
Wm W. Sandyske Clerk By J. J. Heron Deputy.

(SEAL)

Respectfully submitted,

Smith, Enery & Co.,

CHEMISTS & CHEMICAL ENGINEERS

No A-37-69- U.S. vs Devils Den. Coust. et al
" A-52 " " " vs Lost Hills Mfg. Co et al
" A-57 " " " " " " " " " "

Refs Exhibit WK 12. Filed Aug-22-1916

Wm M Van Dyke Clerk

By J F Green Deputy

Transcript p 112

March 16, 1916.

Dear Sir:-

The following are the analyses of three samples received March 15th. The Sulphuric-anhydride (SO_3) was determined on the moisture free sample and calculated to percent pure gypsum-
 $\text{CaSO}_4\text{-}2\text{H}_2\text{O}$.

Sample	% Gypsum.
J 12 g 106	58.59
J 12 f 113	64.32
J 12 e 115	68.18

Consulting Chemist & Analyst.

No-A-37-Eg U S vs Devils Den Wash Del Bete
 " A-52-Eg " " " Last Hills N.Y. Co. Etal
 " A-57-Eg " " " " " " " " " "

Puffs Exhibit 26-55-

Filed Aug 22, 1916

Wm M Van Dyke Clerk

By J. F. Green Deputy

(Deposition of Joseph Jensen.)

A. These are the reports furnished me by Smith, Emery & Company, and by H. Coffman.

The WITNESS.—(Continuing.) These show the results of the analyses made of the samples taken by me and sent to them to be analyzed by them.

Mr. MURPHY.—The Government now offers in evidence certificates of Smith, Emery & Company, and H. Coffman, known as exhibits “K” and “L.”

The WITNESS.—(Continuing.) I have prepared tabulations of the percentages of gypsum shown in the samples taken by me on the various subdivisions embraced in the five locations involved in this proceeding. I have tabulated them separately in my note-book.

Mr. MURPHY.—The Government desires to offer in evidence the tabulations made by Mr. Jensen, showing the results of the tests made on the various subdivisions of each location, and request that they be copied into the record at this point, beginning with the SE. $\frac{1}{4}$ of Sec. 30.

SE. $\frac{1}{4}$ Sec. 30, T. 26 S., R. 21 E.

(Map is Exhibit “E.”)

Ten-acre Lot.	Sample and Point on Map.	Thickness of Layer Sampled.	Per Cent of Gypsum.
NW. NE. SE.	f	12 inches	56.22
NW. NW. SE.	g	15 “	58.59
SE. NE. SE.	e	12 “	55.36
NE. SE. SE.)	a	12 “	51.66
)	c	6 “	58.67
)	d	12 “	38.37
SE. SE. SE.	b	18 “	68.91

(Deposition of Joseph Jensen.)

In excavating this material, mining would reduce the purity of the mined product from 10 to 20% from the percentage stated in [524] the above tabulation, since surface earth "inclusions" and material from below were excluded from the sample, but these would be included in mining.

NW. $\frac{1}{4}$ Sec. 30, T. 26 S., R. 21 E.

(Map is Exhibit "G.")

Ten-acre Lot.	Sample and Point on Map.	Thickness of Layer Sampled.	Per Cent of Gypsum.
NE. NE. NW.	d	9 $\frac{1}{2}$ inches	73.66
N. $\frac{1}{2}$ NE. NW.	e	18 "	68.18
NW. NW. NW.	b	21-27 "	76.20
NE. SE. NW.)	c	11 "	70.87
)	f	13-3 "	64.32

In excavating this material, mining would reduce the purity of the mined product from 10 to 20% from the percentage stated in the above tabulation, since surface earth "inclusions" and material from below were excluded from the sample, but these would be included in mining.

NW. $\frac{1}{4}$ Sec. 32, T. 26 S., R. 21 E.

(Map is Exhibit "H.")

Ten-acre Lot.	Sample and Point on Map.	Thickness of Layer Sampled.	Per Cent of Gypsum.
NE. NE. NW.)	a (bottom	— inches	51.45
)	of		
)	trench)		
) b		12 "	61.12
) b		18 "	56.59
NW.NE.NW.)	c	3-6 "	53.85
) d		(picked sample	61.55
		3 inches)	

(Deposition of Joseph Jensen.)

Ten-acre Lot.	Sample and Point on Map.	Thickness of Layer Sampled.	Per Cent of Gypsum.
NE. NW. NW. e		12 "	34.78
SE. NE. NW. p		12 "	37.70
NE. SE. NW. k		6-10 "	48.80
NW. SE. NW. j		12 "	46.87
SW. SE. NW. i		12 "	58.61

In excavating this material, mining would reduce the purity of the mined product from 10 to 20% from the percentage stated in the above tabulation, since surface earth "inclusions" and material from below were excluded from the sample, but these would be included in mining.

NE. $\frac{1}{4}$ Sec. 32, T. 26 S., R. 21 E.

(Map is Exhibit "I.")

Ten-acre Lot.	Sample and Point on Map.	Thickness of Layer Sampled.	Per Cent of Gypsum.
NW. NW. NE.	A	12 inches	48.52
SW. NW. NE.	c	18 inches	36.02

(NE. $\frac{1}{4}$ Sec. 32, cont'd.) [525]

(NE. $\frac{1}{4}$ Sec. 32, contd.)

Ten-acre Lot.	Sample and Point on Map.	Thickness of Layer Sampled.	Per Cent of Gypsum.
NW. SW. NE.)	m	12 inches	53.57
)			
)	n	18 "	50.48
SW. SW. NE.	d	3-6 "	57.38

In excavating this material, mining would reduce the purity of the mined product from 10 to 20% from the percentage stated in the above tabulation, since surface earth "inclusions" and material from below were excluded from the sample, but these would be included in mining.

(Deposition of Joseph Jensen.)

SW. $\frac{1}{4}$ Sec. 32, T. 26 S., R. 21 E.

(Map is Exhibit "J.")

Ten-acre Lot.	Sample and Point on Map.	Thickness of Layer Sampled.	Per Cent of Gypsum.
NE. NE. SW.	a	18-20 inches	46.50
NW. NE. SW.	b	12-18 "	52.86
SE. NE. SW.	c	18 "	37.94

In excavating this material, mining would reduce the purity of the mined product from 10 to 20% from the percentage stated in the above tabulation, since surface earth "inclusions" and material from below were excluded from the sample, but these would be included in mining.

Mr. MURPHY.—Mr. Jensen, what is the significance of the tabulations showing the percentage of gypsum contained in the deposits on the lands in question?

A. The highest of these samples are found on the NW. $\frac{1}{4}$ of Sec. 30. The sample *b* is of extremely hard material of no proven extent. Sample *d* is of a very thin layer, the top portion [526] of which is very hard. The extent of this material is limited. To make any use of the material represented by these two samples would require the installation of crushing, drying and grinding machinery. The quantity of material present does not warrant the construction of even the simplest type of a gypsum mill. It would be impossible to produce a 70% gypsum from these products, and such a low grade material would not conform to the ordinary standard practices in California and the United States.

(Deposition of Joseph Jensen.)

The other samples illustrated above are of material containing 60% or even less. Mining of course would reduce the 60% samples to very near 50% or less. Such material would not pay for its preparation in a plaster mill even though this was a very simple mill, for the reason that the quantity of material that would call for the construction of a plaster mill is not present on all of the claims taken together.

Occasionally in the past among claimants of oil lands in the west side of the San Joaquin Valley, gypsite has been screened, sacked and sold, usually at a loss, to help bear part of the cost of assessment work. Such practice is not good practice. It is not followed to-day, nor has it ever been followed in any parts of the United States in the development of gypsum properties. Such usage for a land plaster would be limited to a very small district, and would only be possible because of the fact that the gypsite was near the place of use, and not because of the fact that the gypsite had any special value inherent within itself, since such deposits are extremely common throughout the west.

Mr. MURPHY.—In connection with the testimony of Mr. Jensen and the accompanying exhibits, I desire to state that this testimony is not offered for the purpose of showing the extent of the gypsum development work on the claims in question, inasmuch as a large part of this work was done subsequent to the application [527] for patent; but the purpose of Mr. Jensen's testimony with reference to

(Deposition of Joseph Jensen.)

his findings on the land in question is to show the character and extent of the common deposits.

Q. In connection with your examination of the lands in question, I will ask you if you took photographs at different points? A. I did.

Q. I hand you Government Exhibit "M," comprising 6 sheets containing photographs marked 1 to 11, inclusive, and ask you to identify the same.

A. These are copies of photographs taken by me in the Lost Hills.

The WITNESS.—(Continuing.) All were taken on the lands in question except photographs Nos. 1 and 2. These were taken on the SE. $\frac{1}{4}$ of Sec. 32, but the features which it shows are typical of the gypsite on the claims in question, and it is similar to photographs 7, 8, 9 and 10. These photographs correctly portray the view at the points taken. In addition to these photographs I have prepared a legend describing what these photographs represent.

Mr. MURPHY.—The Government now offers in evidence Government's Exhibit "M," being 6 sheets containing 11 photographs.

(Government's Exhibit "M," being photographs 1 to 11, inclusive, is in words and figures following:)
[528]

Plots - Exhibit No. 14 =
11- Photographs with Legends



Port
Ex N/
Yankee of
0118

Port
Ex N/
Yankee of
0118

Photograph No. 1

without Marks of explanation



Photograph No. 2

Same as above, marked for identification.
Photograph showing inclusions of earth in gypsite and other features typical of the amorphous gypsite layer. Note that the surface soil is of irregular thickness. In removing the same over a large area with a plow and scraper this variability would be unknown. It would therefore result in mixing gypsite in the soil and soil in the gypsite. The dash dot line represents the upper surface of the gypsite layer. In all cases this dividing line is very distinct, the surface soil carrying no gypsite. The fine dash line around the darker places marks the dividing line between the gypsite and the earth inclusions. These earth balls are also generally devoid of gypsum. In addition to this spotted impurity the gypsite decreases in purity from its upper surface (the dot dash line) downward.

In all samples taken care was exercised so as not to include any earth balls or earth inclusions in the sample, but in mining such precaution would be impossible.

Part 1, Plots - Exhibit 'M' Field Aug-22-1916
Wm W Van Dyke Clerk
By J F Green Deputy





Photograph No. 3

Manager's residence and directors' cottage to the right.



Photograph No. 4

Residence of Superintendent Stear Esq.

These improvements are located on the NW 1/4 of Section 32. The photographs are intended to show that the soil on the Lost Hills, when irrigated, is capable of supporting all kinds of vegetation. Note the lawn in front of the Manager's cottage and the hedge of rose bushes and other flowers in front of the porch.

Part of Plots Exhibit "M" - Filed Aug 27 - 1906
 Wm H Van Dyke Clerk
 By J F Green Deputy





Photograph No. 5.

Photo taken from NW corner NW Sec. 30, looking SW towards Sec. 22. The foreground is absolutely the same as the entire west side of the San Joaquin Valley. The oil derricks in the distance mark the crest of the Lost Hills. The two oil tanks in the middle of the picture are near the corner of Sections 29, 30, 31 and 32. The two oil tanks at the right of the derricks are at the refinery and shipping plants on the NW of 32.



Photograph No. 6.

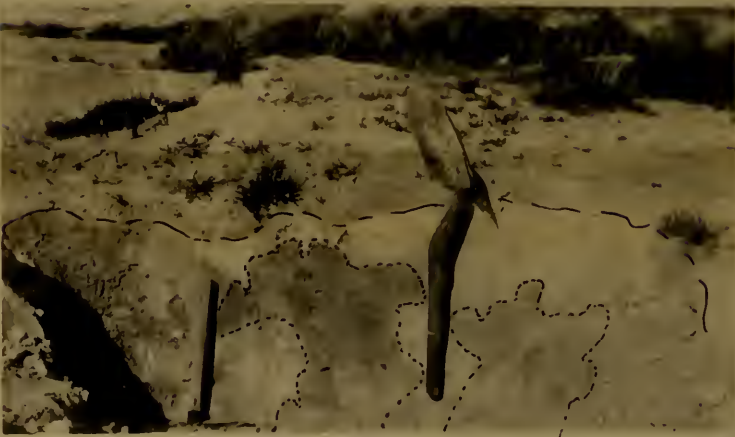
Photo taken near the west side of Section 32, looking a little north and east. The foreground is a grassy flat similar to many that occur throughout the west side of the San Joaquin Valley, being of special value for grazing in the spring time. The telephone pole in the foreground is in the center of a slight depression which crosses the Lost Hills in an easterly direction through the NE of Section 32. The oil derricks are on the crest of the Lost Hills. No gypsate whatsoever occurs in the region shown in the foreground. The deposits are generally confined to the slight elevations of the hill.

Part of Plate Exhibit "M" - Field Aug. 22, 1916
 with W. Van Dyke, etc.
 By J. F. Green, etc.





Photograph No. 7.
Unmarked photo taken on the NW 1/4 of Sec. 30.



Photograph No. 8

Duplicate of above photograph marked for purpose of explanation and identification. This photograph is typical of the gypsite included in sample d. e. NW 1/4 Sec. 30, except that these two samples were so taken as not to include any of the earth balls or inclusions such as shown in the photograph. The surface has been partly cleaned of soil, presumably with a scraper. The depressions, however, are still filled with soil in which grass is growing. The more elevated places consist of the hard layer of amorphous gypsite.

The dot-dash line represents the upper limit of the gypsite layer and is the line formed by the intersection of the surface and the cut made for the purpose of sampling. The sample was taken at the extreme right of the picture in the best material exposed in the cut.

The fine dash line marks the dividing line between the earth inclusions and the gypsite. These earth inclusions were not taken as a part of the samples d. and e. The notches in the pick handle are each an inch apart. The gypsite layer itself varies in purity from its upper surface downward. In this picture it is richest at the underside of the shovel blade and decreases in purity downward to the end of the shovel handle. Even in the photograph this purity can be observed.

Part of
P. P. E. E. E.
M.

Field Aug
22-1916

W. W. Vauke
Lytle Creek

By
J. J. Gerry
Geologist



Photograph No. 9

Unmarked photograph.



Photograph No. 10

Duplicate of above photograph marked for identification to show the manner in which the earth mass beneath extends up in the gypsite layer. Photo taken on the N.E. 1/4 of Section 30.

The dot-dash line represents the upper surface of the gypsite from which the overburden of surface soil has been removed.

The fine dash line represents a streak of earth extending into the gypsite and connected with the earth beneath. In sampling, such earth streaks were not included in the sample, but in any method of mining this would be impossible and the earth thus mined would materially reduce the purity of the mined product.

*Part of Pliffs-Exhibit "M" Field Aug 22-1916
 Wm W. Van Dyke Clerk
 By J. F. Green Deputy*





Photograph No. 11

Photograph taken on the N^W 1/4 NE 1/4 of Section 30.

The foreground of the picture shows gypsite which has been partially uncovered. The man's foot is on the pure hard shell which runs in a line back from him to the right. The shovel extends about three inches in the soil, which supports a growth of grass. Further to the right of the shovel another hard shell of gypsite is outcropping. This photograph illustrates very clearly the fact that any method of mining this gypsite by means of a plow and scraper would not secure a product nearly as pure as my samples since all samples were taken without contaminating them with surface soil, earth inclusions or gypsiferous earth from beneath the impure gypsite layer. Such impurities would amount to at least ten to twenty per cent according to the method of mining, since soil from above and earth from below would be included in the product as mined; hence all percentages of my sample taken by this method must be reduced about one-tenth to estimate the purity of any mined product.

Part of Pepp's Exhibit "M" - Filed Aug 22-1916
 Wm. H. Van Dyke, Clerk
 By J. F. [illegible] Deputy

(Deposition of Joseph Jensen.)

Mr. REDDING.—I will stipulate that the exhibits are also offered independent of the legend, but with my objection to the photographs separated from my objection to the legend.

The WITNESS.—(Continuing.) The lands in question are being used for the production of oil. They are being used entirely for this purpose. They have been very fully developed. The greater part of the wells shown on my maps were producing wells.

I did not find any evidence on the ground of any *bona fide* attempts to recover gypsum in doing assessment work.

Q. Were you able to learn of the fact that any gypsum [529] recovery from the lands in question had been shipped for commercial purposes?

A. Since January, 1914, when I first visited this property, until the present time, there has been no production or shipment of gypsum. Between the time that I made a careful examination in October, 1914, of every piece of work, and the time I made a further examination in March, 1916, I observed that the various improvements were unchanged. The last work which had been done in them was the work done in taking my samples, the evidence of which still remains.

Q. Did you find any of the gypsum on the ground which had been prepared for shipment?

A. I found that at the point *a* on the NE. $\frac{1}{4}$ SE. $\frac{1}{4}$ SE. $\frac{1}{4}$ Sec. 30 gypsum had been placed in cement sacks and assembled together, but at the time of my examination these sacks were rotten and some of

(Deposition of Joseph Jensen.)

them had broken open. The gypsum in the sacks had hardened so as to form a more or less solid mass.

The WITNESS.—(Continuing.) I made an investigation to ascertain whether or not any of this material had actually been shipped. I found that no gypsum had been shipped from this property, these five claims in question, for the purpose of selling. Dudley Brothers did haul one load from the NW. $\frac{1}{4}$ Sec. 30, but I was unable to find whether any payment had been made for this or not.

Q. What have you to say as to the comparative value and use of the land for gypsum and for oil?

A. The lands involved in this proceeding have no present value for gypsum, and no probable commercial value. They are extremely valuable for oil, and are now being developed exclusively for this purpose, and oil is being removed at a profit, so that commercial production is being obtained. [530]

The WITNESS.—(Continuing.) In my examination of the lands involved in this proceeding, I did not find on any of the claims gypsum of special value or exceptional quality, sufficient to constitute a basis for valid discovery. I did not find on any of the lands in question deposits of sufficient extent or quantity to justify a valid mineral discovery. The quantity of material exposed on the claims aside from lacking in quality is not sufficient to justify an expenditure necessary to install an ordinary plaster mill, such as would be the common practice in the gypsum industry.

Q. Did you find on any of the claims in question

(Deposition of Joseph Jensen.)

machinery or facilities of any kind whatever for the production of gypsum?

A. Aside from the fact that a plow and scraper could be used for excavating gypsum as well as an oil sump, I found no mining machinery whatever. There was no installation and no improvement of any kind that resembled or could be used for the purpose of a plaster mill.

Q. Did you make a study and estimate of the cost of mining gypsum on the lands in question?

A. At the time of my examination in October, 1914, the Universal Oil Company was paying 40¢ a cubic yard for having assessment workings conducted in gypsum-bearing material, on the SW. $\frac{1}{4}$ of Sec. 18, in a deposit similar to those in question.

In the oil fields generally, this figure is the common figure paid for making excavations of this type. On large contracts at Maricopa I did find that work had been done for 30¢ a cubic yard for loose earth. To secure a cubic yard of gypsum from a bed one foot thick would require the excavation of gypsite from an area at least 27 square feet. The overburden is usually a foot thick so that to secure a cubic yard of gypsum would require the [531] excavation of two cubic yards of material; one cubic yard of earth and one cubic yard of gypsum.

At the time of my examination such work was costing the Universal Oil Company 80¢, but the material was not being separated from the earth. Everything went into a common pile. Operation on a more extended scale would probably make a

(Deposition of Joseph Jensen.)

reduction in cost of excavation per cubic yard, but this would be more than balanced by the additional work entailed in separating the soil from the gypsite. Consequently, under conditions as I found them, it was costing about 80¢ to excavate a cubic yard of gypsum from a one-foot bed of gypsite when the overburden was one foot thick.

Q. Did you make an investigation in order to determine what it would cost to put this gypsite on the market, from the lands in question? A. Yes.

Q. What was the result of your investigation on this point?

A. This oil-field practice of screening and sacking gypsite and selling it for a land plaster has practically been discontinued, but in order to estimate approximately what such work would cost, the officials of the Universal Oil Company caused three workmen to screen and sack gypsite for one day in order that I might learn at what rate this work was being done. These men did this work in the fall of the year when the days were not so hot as they are during the summer months, so that their rate of working would be an average of what they would do during the year. These men screened and sacked a ton of gypsum for \$1.80. It required 25 to 28 sacks to contain a ton of gypsite because of its loose character. The material was placed in cement sacks that can always be returned to the cement companies for 5¢ a piece but which are [532] worth 7¢ a piece. The sacking for a ton of material would therefore cost from \$1.25 to \$1.75 a ton. I found that freight

(Deposition of Joseph Jensen.)

was being carried into the Lost Hills from the railroad station at Wasco for \$7.00 a ton, and that the freight for the main camp of the Universal Oil Company, under their contract, was \$7.00 per ton.

The cost of mining as practised at the time of my examination would therefore be 80¢ a ton; the cost of screening and sacking, \$1.80; the cost of sacks, \$1.25 to \$1.75; the cost of freight to the railroad, \$7.00 per ton. In addition to these figures, before the product could be sold it would have to pay some freight charge from Wasco to the point of use, and would also have to bear the overhead expenses, such as the necessary costs of salesmanship.

Q. What would be the total cost per ton of this product from the lands in question f. o. b. Wasco?

A. That would be the total of the figures which I have given, \$10.85 to \$11.35.

Q. What is the market value of gypsum at Wasco?

A. Ninety (90) to 95 per cent gypsum can be purchased at Wasco, sacked for \$7.00 a ton. Of course it is not proper to compare a 90% product with one which would contain 60% gypsum.

Q. Are there any deposits of gypsum of similar character in the San Joaquin Valley located closer to the railroad than the lands in question?

A. At McKittrick and Taft I found deposits similar in character, and even somewhat purer, than those on the lands in question, within a mile to two and a half miles from the railroad.

Q. Were these deposits being operated?

A. No, sir, they were not. The operations on

(Deposition of Joseph Jensen.)

the McKittrick deposit were suspended when patent was secured, for the [533] reason that they did not pay.

Q. What economic conditions in the San Joaquin Valley would tend to encourage the development and operation of gypsum as a commercial product, if, in fact, it actually existed in sufficient quantity and quality to justify its commercial use?

A. Gypsum from points outside of the San Joaquin Valley must pay a freight rate of \$2.50 to \$3.00 per ton to reach points of consumption in the San Joaquin Valley. The freight rate from Coalinga is \$1.10 per ton to the same points, and the rate from Taft is less than \$1.50 per ton. The gypsum producer would therefore have an advantage of \$1.00 to \$1.50 per ton in his freight rate if he could find a deposit in the vicinity of Taft, McKittrick or Coalinga. Gypsum contains about one-fifth water. In a plaster mill where gypsum is prepared by calcining, it is necessary to drive off practically all of this water, so that cheap fuel is a very important consideration. In addition, power is necessary for handling the product in the plaster mill. The oil fields of California form ideal conditions for such an industry, if a deposit were valuable.

In the first place, the plaster mill could buy its fuel directly from the producer, instead of from some refining company such as the Standard Oil Company or Associated Oil Company. By making a contract with the producer, such as these purchasing agencies do, the purchaser could save their profit.

(Deposition of Joseph Jensen.)

In the past in these oil fields there has been an unfortunate waste of natural gas. This natural gas could be purchased cheaply for fuel or for the operation of gas engines. The power companies of the San Joaquin Valley that generate power in the Sierras have transmission lines through all of the oil fields, so that the cheapest form of electrical power is also available or [534] could be available at any gypsum deposit in the oil fields that would justify its development. A deposit near the railroad in the west side of the San Joaquin Valley would have the advantage of freight rates, cheap fuel, and cheap power, as against present outside deposits of gypsum.

In addition to the gypsite in the west side of the San Joaquin Valley in the foothills, I inspected a deposit in the bed of the old Kern Lake, on the ranch of the Kern County Land Company. That deposit is as much as four feet thick, and only contains a two-foot overburden of soil. It is within two miles of the Sunset Railroad. Two samples of the material which I took carried 88% and 96.78% gypsum. When this deposit was first discovered its utilization was investigated, but no attempt was made to develop the deposit. [535]

State of California,

City and County of San Francisco,—ss.

I, J. D. Brown, a Notary Public in and for the City and County of San Francisco, State of California, residing therein, duly commissioned and sworn and authorized to administer oaths, etc., do hereby cer-

(Deposition of Joseph Jensen.)

tify that the witness, Joseph Jensen, in the foregoing deposition named, was by me duly sworn to testify the truth, the whole truth and nothing but the truth in said case; that said deposition was taken at the time and places mentioned in the caption thereto, to wit, at Room 206 N. 785 Market St., and at Rooms Nos. 411-17 Crocker Building, San Francisco, on the 5th day of April, A. D. 1916, and continuously thereafter until the 8th day of April, 1916, at which time and place the said deposition was completed; that the said deposition was taken in shorthand by Leonard M. Tongue, a competent and disinterested person by me for that purpose appointed, and was by him afterwards reduced to longhand typewriting; that before proceeding with the taking of the said deposition the said Leonard M. Tongue was by me duly sworn to report the proceedings and testimony given in shorthand and thereafter to render a true longhand typewritten report of same; that by and in pursuance of the Stipulation hereto attached, the reading and signing of the said deposition by the said witness, Joseph Jensen, was waived.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, this 19th day of April, A. D. 1916.

[Seal] (Signed) J. D. BROWN,

Notary Public in and for the City and County of San Francisco, State of California. [536]

Mr. HALL.—The plaintiff now offers and reads in evidence a certified copy of a deposition of Orlando D. Barton, which was taken in the matter of the ap-

(Deposition of Joseph Jensen.)

plication of the Lost Hills Mining Company, a corporation, for patent to mineral applications Number 03431, 03432, 03459, 03448, and 03457. I offer this deposition in 37, 52 and 57.

Mr. DUNNE.—That was taken in a proceeding in the Land Department?

Mr. HALL.—Yes.

Mr. DUNNE.—And you are offering it in this case as a proceeding in the Land Department?

Mr. HALL.—Yes.

Mr. DUNNE.—Was that covered by stipulation?

Mr. HALL.—Yes. It is offered only for the purposes of the receivership.

Mr. DUNNE.—But its admissibility was covered by the stipulation?

Mr. HALL.—By the understanding with Mr. Redding and Mr. McWilliams when we discussed the question of certified copies, and Mr. Redding said it would not be necessary, but that we could simply offer them.

Mr. DUNNE.—I should not oppose the general production of evidence that would be competent as to what someone said in some other proceeding.

Mr. HALL.—The same question was under consideration there as is under consideration here, and here we have a right on the application for a receiver and a motion for a temporary injunction to offer *ex parte* affidavits, and it was agreed between Mr. Redding and myself that we should offer these depositions without going to the work and bother and expense of either taking new [537] deposi-

(Deposition of Joseph Jensen.)

tions in this particular hearing—

Mr. DUNNE.—If that was a stipulation I have nothing further to say.

Mr. HALL.—I want to read this deposition because it gives the history of these transactions.

Mr. DUNNE.—I wish to object to it as incompetent. My objection being subject to any outstanding stipulation made by Mr. Redding.

The COURT.—Overruled.

Mr. DUNNE.—Exception.

(Thereupon Mr. Hall reads said deposition, which is as follows:) [538]

Testimony of Orlando C. Barton.

ORLANDO C. BARTON, being first duly sworn by the Register of the United States Land Office, at Visalia, California, testifies as follows:

Direct Examination.

(By Mr. REDDING.)

The WITNESS.—My name is Orlando C. Barton. I reside at Visalia, California. I have lived in Tulare County, California, for 50 years. Mining has been my occupation and business, mostly.

I am acquainted with the country known as the Lost Hills region, namely, Townships 25, 26, 27 S., Ranges 20, 21 and 20 and 22 East, Mt. Diablo Base and Meridian.

Q. I call your attention to the particular district of the lands involved in these contests, namely, Sections 30 and 32, in Township 26 South, Range 21

(Testimony of Orlando C. Barton.)

East, M. D. M., Kern County, California. The particular land being the NW. $\frac{1}{4}$ and SE. $\frac{1}{4}$ of Section 30, the NE., SW. and NW. $\frac{1}{4}$ of Section 32, in Township 26 South, Range 21 East. You were one of the original locators of these lands, were you not?

A. Yes, sir.

The WITNESS.—(Continuing.) I am acquainted with Charles W. Barrett. I am familiar with the existence of a contract between Barrett and the Lost Hills locators.

Q. This contract is dated in December, 1908. I simply call your attention to that fact. Were you out on the land involved in this contest that I have just described during the fall of 1908?

A. I was, but I don't think that I was there in December; I don't remember it.

The WITNESS.—(Continuing.) Why, I think I can refer to my memorandum books and find out whether I was there during the [539] winter of 1908.

Q. Did you see Mr. Barrett out there during the winter of 1908 and early in the spring of 1909?

A. Yes, I saw Mr. Barrett out there.

The WITNESS.—(Continuing.) He was going or coming over on Section 18. I didn't see him at work. I know that he had men employed at that time on the land. I saw them there. There was a man named Hugh Berry. At the time I saw him he was staying there and taking care of the property, the lumber and timber that was there.

Q. What lumber and timber was there that you

(Testimony of Orlando C. Barton.)

saw during the winter of 1908, and early in 1909?

A. Well, there were 3 cabins there, and lumber and some big timber for derricks and drilling.

The WITNESS.—(Continuing.) I first saw that lumber and timber there along in the winter of 1908 and '9, I can't tell exactly, I don't think my record shows exactly when I was there. I might find it. Mr. Barrett brought that lumber and timber in. I saw the teams going, when they went there. I recall that there was a man by the name of Butts, who was also engaged with Mr. Barrett in his work. He was one of the locators. I saw Mr. Butts when he was preparing and getting ready the men and teams to go over. That was about November, 1908. The winter of 1908 and '09 was very wet and the coldest winter we ever had over there. Ice froze all day, and it would snow, too, all day.

This lumber and this timber was brought in to build derricks and to be used setting up drilling rigs on Section 18, 30 and 32, Township 26, Range 21. This lumber was utilized for the construction of houses on some of these lands. I saw the houses after they were constructed. I occupied one of them [540] myself, and a part of the time another one. The house on 18 was about 12 by 16 feet, I think, with a porch on it. I built the porch myself, on the end of it. The other house on the SW. $\frac{1}{4}$ of 30 was a bigger house. It was made partly out of this lumber that was there on 18. That was the lumber that Barrett brought in. The houses that I refer to on 18 and 30 were used by the drillers that drilled up the land.

(Testimony of Orlando C. Barton.)

That is to say, the one on 18 was, or those on 18. The house on 30 was built there for the drillers, but they did not any of them move in to it while I was there.

The winter of 1908 and '09 was very wet at the beginning, and in November, it turned cold, and the drilling rigs along in the country were all shut down on account of the roads being bad, and ice would freeze on the ropes in the derrick all day long, in the month of December, and it got so cold, the oil men came out of there in the month of December; came out along the west side. I am describing the climate and winter to show you how it was .

When I was occupying that house, or those houses, on 18, I represented the locators of the Lost Hills, and also the Devil's Den Consolidated Oil Company. The Devil's Den Consolidated Oil Company at that time was working in territory west of this. But I was representing the Lost Hills locators with reference to these particular lands at this time. I was their agent, that I was one of 5 agents at the time. It was my business to look after the field.

I know that Barrett and Butts and the various employees had difficulty in getting their lumber and rigs material into this territory during this winter. The cause for that difficulty was that the flood in the spring of 1906 washed out the bridges across what [541] we call the Big Levee on the township line between there and Wasco. There were 9 bridges there, and as near as I remember there were three of those bridges washed out, and that let them down into the slough. The only way that a team could get a load into this

(Testimony of Orlando C. Barton.)

territory and on to these lands in the fall of 1908, was to go across the Wasco levee, and that is the way Butts came there. Mr. Barrett, Mr. Butts and myself employed 27 men there during the winter of 1908 and 1909, not counting Butts himself. They had twenty horses. I may have forgotten, it is possible they had 22 horses. But in round numbers about twenty horses.

Q. I call your attention and that of the other counsel to a map of the Lost Hills and the Devil's Den Oil fields, compiled by J. R. Thornton, Civil Engineer, Bakersfield, Kern County, California, Scale 1½ inches to 1 mile. September, 1913. This map at present is attached to a supplemental affidavit of J. D. Martin, dated April 7, 1915, and transmitted to Mr. Tallman, Commissioner of the General Land Office, with Mr. Martin's affidavit by myself. With the consent of counsel, I would like to utilize this map in asking Mr. Barton regarding certain approaches to this land. If you will look on this map, through here, at Township 26, Range 21, is marked thereon the township line between 26 S. and 27 S., running from east to west through ranges 22 E. and 21 E. is marked thereon. Will you please state whether or not Mr. Butts and Mr. Barrett and their men constructed a road, or dike, or crossings over the slough that lies east of this country, so as to get from Wasco west on to Township 26 S. and 21 E.?

A. They repaired the levee and bridges, beginning about a quarter of a mile east of the NE. corner of 27 S. 22 E.

(Testimony of Orlando C. Barton.)

The WITNESS.—(Continuing.) That would also be east of the SE. corner of 26–21. Beginning about there they repaired this part of the levee all along for something like a mile and a half, [542] and the bridges also that were in the levee along there. The bridges were at the east of the levee, I believe, did not go out. It was here (indicating on map) where they repaired the levee, between section—well, within half a mile of the township corner of 26–21, right along there is where they did the repairing.

Mr. REDDING.—That would be, with consent of the other counsel, on that south boundary of Sections 31 and 32, in Township 26, Range 22.

The WITNESS.—(Continuing.) I saw the results of their repairs, building up of the dam, and repairing the crossings. I went over this road myself. I did not see them transporting lumber and materials over this dike or over this road. I saw the work. I was there afterwards. I also saw they were starting the lumber, but I did not see them when they were here. I know they did that work there. They did it as they were moving in, with the horses and men to which I have referred. Butts, with his men, they couldn't get across without repairing it. From that time, down to the present, and during the period in which the various development work was done in Township 26, Range 21, of Sections 30 and 32, the means of getting in on to the sections from Wasco and from the outside world, was across the same levee. It was bad all the time and is bad yet. We

(Testimony of Orlando C. Barton.)

kept up the road and dikes in the crossings by rebuilding it and reconstructing it from time to time, up until the time the county took charge of it. Then the companies in there assisted the county on that levee.

There is a slough running about north and south on the line of Township 26, range 21. It is the slough that I referred to before, over which there were bridges that were broken down. On the maps of Tulare and Kern county, called Buena Vista slough, all the way across there. It is part of old Tulare Lake. I have [543] seen it when it was full of water.

Prior to the time when Barrett and Butts were busy on this work in the fall of 1908, there were no roads on Sections 30 and 32 in township 26, range 21. I know that Barrett, Butts and myself built roads on Sections 30 and 32. Barrett and Butts built the road which passes generally through the SE. $\frac{1}{4}$ of Section 32 to the NW. $\frac{1}{4}$ of Section 32, in Township 26 S., Range 21 E., and thence across Section 30 in a northwesterly direction into the NW. $\frac{1}{4}$ of Section 30, thence turns northeast on to Section 19. The road is not all marked on there.

Q. Will you state what you know of the road, what the road does consist of, that is not marked?

A. The cabin on Section 18 where I stayed, right close to the crossing.

The WITNESS.—(Continuing.) The SW. $\frac{1}{4}$ of Section 18, in Township 26 S. and range 21 E. The road goes over on to Section 24, in township 26, range

(Testimony of Orlando C. Barton.)

20, close to what we call the sulphur beds. Then follow this road we have been describing across here. The roads run over on to the NE. $\frac{1}{4}$ of Section 24, township 26 S., range 28, thence it runs southeasterly, passing over Section 30, from the northwest quarter of Section 30 to the NE. $\frac{1}{4}$ of Section 30. Thence from the northwest corner of Section 32, in a southeasterly direction, down across Section 32 to the township corner of Section 32. J. H. Butts built that road under the direction of Barrett and the Square Deal Oil Company. That road is still there; it was the last time I was over there. It is over two years ago. Late in 1909; there is a big gulch that we call the Arroyo Grande that runs across Section 19, and this road from Section 18, across on to Section 24, to get around the head of that gulch. Down in that gulch there I did my first work there of grading and fixing that gulch. That was late in 1909. This road [544] that I have described comes down on to the township line between township 26 S., and township 27 S. It connects with the road and crossings and dikes that Butts and Barrett built to cut across the slough on to this property.

The road from the SW. $\frac{1}{4}$ of Section 31, township 26 S., range 32 E, commencing just after the slough is crossed, and then going west along the boundary line between the two townships, till you get to the SE. $\frac{1}{4}$ of Section 32, is a country road. That is a graded road. It was a graded road at that time. And starting in at the SE. corner of Section 32, and then going northwest is the road that Butts and Bar-

(Testimony of Orlando C. Barton.)

rett built upon to these properties.

Q. On whose behalf did you work on the road that we have mentioned, for whom?

A. I represented two companies. That is the Devil's Den Consolidated Oil Company, and the locators of the Lost Hills.

The WITNESS.—(Continuing.) This road had to do with the Devil's Den Company at that time because in order to get on the NE. of Section 30 at the start, we either came around Section 18 or else came around and came up this little road there. That is the way we got in there first, was to come around this way, and come in from the west, along the road crossing sections 30 and 32.

This road that I have been describing was necessary in order to reach the NE. $\frac{1}{4}$ of Section 30, as well as the other portions of Section 30, when I first went there.

Mr. REDDING.—We offer in evidence the map that we have just identified as being attached to Mr. Martin's affidavit, and transmitted to the Commissioner, and ask that it be marked as Exhibit "A," with reference to Mr. Barton's testimony.

(The map just referred to as exhibit "A" in Mr. Barton's deposition is introduced in evidence in the record at the hearing upon motion for receiver and marked Defendant's Exhibit "B" in suit A-52 Equity, United States v. Lost Hills Mining Co.)

(Defendant's Exhibit "B" is in words and figures following:) [545]



Wm. Van Dyke Clerk By J. J. Fenn Deputy

T. 26 S. R. 22 E.

MAPS OF OIL FIELDS
\$2.50 Each.

\$2.50 Each.

(Testimony of Orlando C. Barton.)

The WITNESS.—(Continuing.) This road, and filling in across the slough, and the road across Section 32 and 30, which you have described were necessary in order to get on and [546] develop these properties. There was no way to get on to these properties with heavy teams at that time, that was practicable, except by this method.

I did not see the lumber and material which Mr. Barrett brought in, coming over this road, but I saw it when it was there. I saw them fixing up to make the start.

I didn't see them fixing up this road at that time. I saw them fixing up the road later on.

Q. Describe what you saw them doing, if you can, generally.

A. I was not there in December, 1908, as I told you, but in the spring of 1909, I was there frequently, and through the next summer, how often I cannot tell you.

The WITNESS.—(Continuing.) During the spring and summer of 1909, I saw Butts getting water up from the slough, on a sheep road that runs from Section 18 down across here. I went with Butts once or twice to Section 18, he made a road down here, to run across the north line of Section 19, down here, to get water out of the slough. I was with him. Down here in this part, it did not take much to make it, but it did take considerable work up on Section 18. I saw them working on the road that crosses Section 30 and 32 from the northeast to the southwest after the spring of 1909, but not before.

(Testimony of Orlando C. Barton.)

I saw them hauling lumber and fixing gulches, and more particularly leveling on the sand knolls that lay there, that they could not pull through. The principal work was to level down those sand knolls; they were about three feet high, and run from the northwest to the southeast, and were about 7 or 8 feet wide. And it was impossible to get over them with a big team without work.

I have been over this road frequently since the spring [547] of 1909. I went over this road the last time I went out there two years ago. I came out this road the last time I was there. I came from the northwest to Section 30, right down this road. That is the road that was used at that time by the people in the occupation of Sections 30 and 32. It was oiled at that time. It was an oil road.

I was familiar with the contract that Barrett entered into with the locators of the Lost Hills covering the lands involved in this matter here, at the time it was made, and afterwards. I can guess at it pretty close about what time that agreement would elapse.

Q. It is agreed tentatively that the date upon which Mr. Barrett's rights under his contract of December, 1908, would elapse, is June 3, 1909. Bearing that date in mind, I would like to have you state generally, how frequently you were out on Sections 30 and 32, at the end of the winter and throughout the year 1909, prior to June 3.

A. Well, I can remember twice now, and I think I was out there six or seven times.

Q. Was Mr. Butts there when you were there?

(Testimony of Orlando C. Barton.)

A. I went with Butts there—not when he was doing the work, in the fall of 1908, though.

The WITNESS.—(Continuing.) In the spring of 1909, after he had finished this work, I saw Mr. Barrett frequently at Hanford, and I met him on the road from there to the Lost Hills. He was trying to get a well started at the Lost Hills, and putting in a good deal of his time down at San Jose and San Francisco trying to raise money. I did not know at the time how much money he had expended on this property during the winter of 1908 and the early spring of 1909, it was something like \$4,000. Representing the locators as their agent out there, and from my knowledge of what Mr. Barrett had done, and what he had to do, in the spring of 1909, it was my opinion that he would not carry out the contract. I reported this to my principals. [548]

Q. To whom?

A. The other four agents, generally Judge Wallace. I always found him in the office here.

Q. I call your attention to the fact that the Lost Hills Mining Company was organized in the spring of 1909, the record shows, and counsel agrees with me, that the Los Hills Mining Company was organized March 13, 1909, and that the stockholders of this company were each and all of the locators of these particular lands which are involved in this matter. Also counsel will agree with me that Barrett's, that the Barrett contract was outstanding at this time, and had not lapsed because it did not lapse till

(Testimony of Orlando C. Barton.)

June first. You spoke of Judge Wallace, to whom do you refer?

A. The Superior Judge of Tulare County at the present time.

The WITNESS.—(Continuing.) He was one of the Lost Hills locators on these lands. He became one of the incorporators of the Lost Hills Company.

Q. Was he president?

A. No, Butts was president.

Q. What did you state to Judge Wallace regarding Barrett's labor and his ability, or inability, to carry out the contract?

A. Well, I stated to Judge Wallace that I thought Mr. Barrett could not raise any more money, that he had got all the money he could raise, early in the season, and that when his time was up, that would be all that Mr. Barrett could do, that he had failed.

The WITNESS.—(Continuing.) I reached that conclusion along in the month of January. I reached his conclusion principally from conversations with J. N. Hoyt, a man that was well acquainted with Barrett, and well acquainted with Butts, and was [549] with me more or less all the time in making the locations, and afterwards. He was one of the locators, and he told me that Barrett could not make good, that he was all in, that he could not raise any more money, and that was along about January, 1909. It was that early. I made a recommendation to Judge Wallace on behalf of the other locators, and on behalf of the Lost Hills Mining Company, which was afterwards organized, and kept it before his

(Testimony of Orlando C. Barton.)

mind, that if possible we would get Ed Dudley to drill a well on there in case Barrett did fall down. And if we could not get him, why, take somebody else that we knew would drill a well; that the sooner that we got busy to get somebody else, the better, because Barrett was going to fall down. That was the talk I had with Judge Wallace. I made this recommendation to my associates in the winter just before the spring. My principals, the locators and this company, authorized me and instructed me to get in contact with other drillers in the spring of 1909. They appointed me a committee to look up, or interest anybody that could put a well down in the Lost Hills. This authority was given me by the locators, individually, and by the company after it was formed, both. After the company was organized I think they passed a resolution authorizing me to get somebody to put a well down there.

Q. I will state to counsel that we will introduce the record and minute-book of the Lost Hills Mining Company, and show by the records that they had a meeting there the very day after the Barrett contract lapsed, in which they passed resolutions refusing to extend the Barrett contract, and authorizing Mr. Barton and others to complete negotiations which had already been under way, with reference to other drillers. I have not got the record here, but we will introduce it in San Francisco. Did you come in contact and personally meet any other drillers during the spring [550] of 1909? A. Yes, sir.

The WITNESS.—(Continuing.) In the first

(Testimony of Orlando C. Barton.)

place, I will mention E. R. Dudley. He had an office here, and I talked to him nearly every day. I was in Visalia about the proposition, and I met the driller for George R. Anderson Company, and tried to get him interested in it. It was a Visalia Company.

I remember being in Hanford. I met E. R. and B. B. Dudley in Hanford. They were ranchers here near Visalia, and had an office here in town.

Q. Had they been engaged in the oil and mining business?

A. Yes, sir, they were in the oil mining business.

The WITNESS.—(Continuing.) E. R. Dudley was a good driller, and I considered him the best driller that I knew. I saw him in Hanford. That was in the spring of 1909, April or May sometime, along there in the spring. I could hunt it up in my journal, I suppose. It was in the spring of 1909.

Q. What arrangements did you make with Dudley on behalf of the Lost Hills Mining Company at that time, with reference to this property?

A. I told Ed and Ben Dudley to let—The Devil's Den Company, I have forgotten the rest of it—to let it alone, and go down to the Lost Hills where they could make millions in the place of thousands of dollars. They were about to sign up a contract with the Hanford company to drill on their land, over in the Kettleman Hills. After I had talked with them about 10 minutes, why, Ed Dudley says, "We won't sign this contract with Ed Bush and the Hanford firm there," and he says, "We will go down to the Lost Hills and I will put down the well myself."

(Testimony of Orlando C. Barton.)

That was satisfactory to me.

The WITNESS.—(Continuing.) I cannot recall what month [551] that interview occurred, I have got confused about it. It was in the spring of 1909. It was prior to the time that the Barrett contract lapsed.

Following his interview I came down to the Lost Hills territory and upon Sections 30 and 32, with these gentlemen. John Martin was with us then. Martin and Dudley both. We went down in an old White Steamer automobile.

Q. What did you do with them when you reached the property involved in this matter; what did you do, and what did they do? First, about how soon after this interview did you bring them down there?

A. Well, I can't remember that. It was not long after the interview that we went down there.

The WITNESS.—(Continuing.) I think it was not over two weeks. I took them there and showed them the indications of oil, and showed them what we called the bubble on Section 19, Township 26, Range 21. And we walked along the apex of the anticlinal fold north of there. And I also showed them the place where I thought was the best location to drill on the government land in 26-21. That included section 30 and 32. It was on Section 30. And I was there with them afterwards, I can't tell you how many times. Then I saw them there when I was there with other men. I saw Martin and Dudley there. I afterwards spoke to Martin and Dudley in Visalia in connection with this business. I met them

(Testimony of Orlando C. Barton.)

with other stockholders and locators of the Lost Hills territory covering this land. With the Dudleys, we were discussing the kind of a rig, and how deep it was to oil, and what the expense would be and how to get in there and out. That was my conversation with the Dudleys. But our attorneys were busy with Martin and Dudley, fixing up a contract. Of course I believe they were a long time [552] at that.

Q. Were those associations continuous through the spring and summer of 1909?

A. Well, the first contract was closed. There were supplemental contracts that were continued and discussed all along during the year 1909 and '10.

The WITNESS.—(Continuing.) I went out with Martin and Dudley, or their employees or agents, during the summer of 1909, on this property. I remember twice, and I remember seeing them there once when I was with Dan Overall with some other parties from Visalia.

Q. You spoke of some oil company that Barrett was interested in through the sale of the stock of which he wanted to raise the money. What was the name of that company, the Square Deal Oil Company? Do you remember that?

A. Yes, sir, that was the name of the company that was doing the work, that Butts was doing the work for.

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